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The South's Opportunity.

Mr. C. P. Huntington, president of the Southern Pacific Railroad Co., in the course of a recent letter to the editor of the Manufacturers' Record, in which he touched on the disposition of some Southern legislatures to enact laws hostile to corporations of all kinds, said:

I do think, however, that the people of the South have for a long time been standing in their own light and are largely responsible for the retardment of their own prosperity from which they have suffered. Capital is timid, because its use is always attended with the natural risk of errors of judgment and emergencies of the times. When to this risk is added the dangers threatened by legislatures which turn a cold shoulder to capital, or perhaps evince hostility to it by their open efforts to curtail its independence, attack its security and practically confiscate the property represented by it, what wonder is it that men who would like to develop with their money the resources which await their energy, enterprise and thrift shrink from the hazards and decline to place themselves in the power of those who, by their actions, seem to show only a desire to hamper and destroy them?

The South of today is a great empire of industry lying fallow, as it were, for the lack of seed. There is plenty of money in the country, and it is casting about for profitable employment. The Middle West has welcomed it, and grown fat on its utilization in numberless channels of trade, commerce and manufacture. Let the South be hospitable to her guest, and show him that, while within her borders, he is safe, and her advance in everything that goes to build up a country and make it great will be marvelously rapid and permanently assured.

To Exploit Georgia.

Plans have been made for a special illustrated edition of the Lawrenceville (Ga.) News for the purpose of presenting the industrial and agricultural opportunities of that section and its attractions for settlers. Twenty thousand extra copies will be published, each of 126 pages, beautifully illustrated throughout with half-tone engravings. The front cover, in gray, green and crimson, shows an artistic and striking representation of Georgia holding an apron full of grain, fruit and vegetables. Mr. William Murdoch, of Gainesville, Ga., is the editor of the special edition.

Removing Tariff from Politics.

Evidence of a rapidly developing purpose in the South to remove the tariff from the demoralizing influence of politics and to treat it as an economic question is accumulating daily. It was hardly to be suspected that this tendency would be strongly manifested at first in Congress, but the position assumed by Representative McLaurin, of South Carolina, which was noted last week in the Manufacturers' Record, was a certain index to the shifting of public sentiment. It removes the element of surprise, moreover, from developments of the past few days. Mr. McLaurin had in mind cotton and rice when he advanced his plan for reciprocity in tariff legislation, and when sugar was reached Representative Meyer, of Louisiana, stepped forward with practically the same idea. He congratulated the committee of ways and means upon "the breadth, wisdom and statesmanship of their conclusions" in making up the sugar schedule, and saw in them a return to "the old lines of the protection school of which Clay and Webster were the brilliant exponents." These utterances were not intended by Representative Meyer to indicate that he had determined to part company with the party with which he had been identified. Nor did he create such an impression upon one of his home papers. Commenting on his speech, the New Orleans Picayune said:

The duty on sugar, while it will yield a large revenue, will also afford fair incidental protection to the American sugar producers, who are chiefly in Louisiana. Incidental or not, here is protection for Louisiana, and General Meyer admits that it is with poor grace that Louisiana shall ask the other States of the Union to give her protection while she refuses to assist other States which have large interests to protect. It is in this spirit that the Louisiana congressman will help Ohio and other Northern States in the wool schedule, and will vote for such other protection as the bill may carry.

This is the position of many other Southern democrats. From free-traders they have come to be full-fledged protectionists, which is another confirmation of the fact that all the parties are rapidly shifting ground on questions of policy. Now that the Southern people are large producers of articles for which they need protection, and are rapidly abandoning the distinctive demands of States' rights, there will remain only the race question to keep the Southern people united. Eliminate the negro from politics as a portentous factor, and the solid South will break up.

But General Meyer is doing all in his power to secure protection for the sugar, rice, salt, lumber and other great interests of his State, and, should he succeed, his constituents will excuse him for any alleged abandonment of time-honored party lines.

This is a distinct advance for the Picayune, but its deduction that all parties are shifting ground on questions of policy indicates that it has gleaned from recent developments only half of the truth, which is, that Southern men are now able to disregard party lines in dealing with economic questions. A striking example of this was given by the Chamber of Commerce of Chattanooga, Tenn., in adopt-

ing a resolution urging representatives and senators from Tennessee to vote for a protective tariff on lumber. The resolution was opposed on the ground that the tariff was a political question, and therefore should not be discussed by the Chamber. In the debate the point was made that the matter should be treated as a purely business one, and finally the resolution was adopted by a viva voce vote.

This episode shows that some persons are still determined to regard the question as a political one, but its conclusion is so much the more a proof of changed conditions. That the movement in the South will be resisted is a self-evident fact. Force of habit and honest conviction are to be overcome, but this will be accomplished long before those who live and move and have their being in the intricacies of the entanglement of business and politics have ended their opposition. In the meantime, however, the movement will continue with ever-increasing intensity.

Justice Peckham's Opinion.

Though a week has elapsed since the decision of the Supreme Court against the Trans-Missouri Railway Traffic Association was rendered in the opinion of Justice Peckham, individuals and corporations immediately interested in the decision have apparently not had sufficient time to agree upon its ultimate effects. That these will be far-reaching no one can have a doubt, but in the absence of a certainty about the direction they will take it is a question whether they will benefit the country generally.

Ex-Attorney-General Harmon believes that all pools will come under the decision; Russell Sage, banking upon the statement that brains and capital have ruled the world since the advent of man, looks to the lawyers to evolve some plan of procedure; Chauncey M. Depew does not concede that the decision will stand against the Joint Traffic Association in the East, while John K. Cowen looks for trouble, and contends that there must be some kind of legislation taking the railroads from under the operations of the anti-trust law. These expressions are illustrations of the variations of comment and of the expectant attitude of railroad men.

Relief may be had from Congress, but if it should not come, and if Mr. Harmon's belief is sound, the next few years will undoubtedly be marked by a change from the principle of quasi-federation among railroads to one of consolidation. The suddenness of this, anticipating what might otherwise be a natural evolution, can, it seems, have only a disastrous effect upon the country. Its first stage will be a renewal of the ruinous competition of a few years ago, growing out of the uneconomic paralleling of railroads and extensions beyond the legitimate demands. The demoralization caused by this cannot fail to affect business

seriously, but from it will come the gradual absorption of weak systems by the stronger.

Some action ought to be taken by Congress promptly to avoid the danger that now threatens of a general consolidation that would give us only a few giant railroad systems in the entire country.

Electricity and Railroads.

Persons who have closely scanned the field see in the sharp competition on short passenger hauls between the steam railroads and the electric lines stretching into the country a prospect of the substitution of electricity for steam as a motive power. The pioneer efforts that have been made in that direction lead to a belief that the primary inclination on the part of the experimenters will be toward adapting their roads to electricity. The electrical engineer, of course, is the only person qualified to estimate the cost of making the change and to treat intelligently the questions of equipment, expenses of operating and the many details belonging to a scientific specialty. But while such problems are being solved, might it not be practicable and profitable for the steam-railroad companies to encourage, if not to undertake, the construction as valuable feeders of the more lightly equipped and short electric lines through territory hitherto destitute of means for rapid transit, but capable of rich development thereby? The electric road is notably a developer, and in many cases it actually creates traffic. As an adjunct to a steam railroad it would be particularly effective in meeting needs already felt and in contributing in steady progression to the business of the main line.

It is believed that such a plan would be successful in many parts of the South, particularly in regions contiguous to undeveloped water-powers, in which the South is so rich, and which would be an important item to be considered. Short lines of quick communication tributary to the railroads already built would give an impetus to immigration, to agricultural development and to industry which would be shared by all its agencies. An electric line connecting a colony of fruit-growers with a railroad town has already been projected in Alabama. More of the same kind may be expected not only to hasten the day when the substitution of electricity for steam generally will be economy but also to diminish thereafter the total cost of operation.

Saving or Investing.

Several newspapers of South Carolina are engaged in an animated discussion of the importance of savings-bank deposits as a gauge of the prosperity of a community. Different views, approaching each other, are set forth, but a wise summary of the argument is made by the Columbia State in these words:

The habit of saving should be cultivated

far more than it is in the South, but the habit of wise spending is more productive of good, more valuable to the community. Let the citizen learn to save, but when his savings-bank deposits reach a sufficient sum he should invest them in enterprises that make for the creation of employment, industry and wealth.

Candor Is Appreciated.

In an extended editorial on flexibility in banking methods, the Chicago Times-Herald says:

The Manufacturers' Record, of Baltimore, has been doing excellent service in the cause of currency and banking reform by publishing interviews with well-known business men on the subject. The views of Mr. Stuyvesant Fish were thus published, and now in the current number of the Manufacturers' Record we find an interview with Mr. D. A. Tompkins, a prominent Southern manufacturer of Charlotte, N. C., on the necessity of greater flexibility in banking methods.

Alluding to the same interview, the Progressive Farmer, of Raleigh, N. C., says:

We do not endorse all of Mr. Tompkins's views, but the article will do good, for it tends to keep a very important question before the people, and in this case reaches a large number who seldom see an intelligent, unbiased article on the financial question.

It would be difficult to imagine two other papers as far removed from each other in general policy than the Chicago Times-Herald and the Progressive Farmer. Their common appreciation, therefore, of the value of Mr. Tompkins's views is an uncommon tribute to the fairness and candor of their author.

The Omaha Exposition.

For the Trans-Mississippi and International Exposition to be held at Omaha, Neb., next year, the Chicago & Northwestern Railway has subscribed to \$30,000 of stock; the Burlington road to \$30,000, and the Rock Island and the Union Pacific will each subscribe to \$25,000, and the Missouri Pacific and the Milwaukee each to \$20,000.

An Illustration of the Need of Advertising.

A correspondent of the Manufacturers' Record says:

"Mr. Leech, of Harrison Bros. & Co., paint manufacturers, Philadelphia, wants all the information obtainable regarding Galveston, Texas, its progress, its industries, the progress made in providing deep water at the port, etc. If you have any information whatever on these and kindred phases of Galveston's progress, please send to him; also if the Business League at Galveston has issued any book or printed matter, it would be a good idea to get copies and send him."

Only a few weeks ago the Galveston News was urging its people to advertise, and this is an illustration that shows the need of it.

Not an Ill Wind to the South.

[Special Cor. Manufacturers' Record.] Cincinnati, Ohio, March 30.

I have just listened to some expressions from Prest. S. M. Felton, of the Cincinnati, New Orleans & Texas Pacific Railway (Queen & Crescent Route), concerning the effect of the recent Supreme Court decision prohibiting traffic agreements, and while he did not quite so characterize it in words, he said enough to warrant the conclusion that ill as was this wind to Western lines, it will blow good to the South by showing the comparatively healthy transportation conditions in that section, though his own line is operated entirely within the region between the Mississippi river and the mountains, the Ohio and the Gulf. The following paragraphs are reported verbatim:

"While I regard the recent decision of

the United States Supreme Court in the Trans-Missouri Freight Association case as very serious in the restrictions it places upon the traffic management of railroads, I do not see why it should cause any demoralization among the railroads in the South, and especially in the section which our line serves. The gravity of the situation should prompt us to be careful and conservative in everything we do, and we should hold our rates and prevent any demoralization until we may be able to secure some relief.

"Nothing has occurred since the passage of the interstate commerce act that more forcibly emphasizes the importance of an amendment to that act permitting pooling under proper regulations. Railroads cannot satisfactorily conduct their business with so much uncertainty surrounding it, and while I believe it is the effort of all railroad officers at the present time to maintain rates and preserve their revenues in every way, they must have proper legal facilities for permanently accomplishing such a result.

"Many people fail to appreciate how important railroad prosperity is to the general prosperity of the country. If earnings are good railroads employ a large amount of labor directly; they employ a still larger number of men indirectly, through the purchase of rails, equipment, material and supplies, all of which is most important as affecting the general business of the country."

I am inclined to believe, as was Mr. Felton, that the Southeastern lines are likely to be as little hurt by the Peckham decision as the Q. & C., the L. & N., the Illinois Central and the Mobile & Ohio, which do the business of the Central South.

THOMAS P. GRASTY.

Industrial News from Birmingham.

[Special Cor. Manufacturers' Record.] Birmingham, Ala., March 30.

The slacking up in the demand for iron reported by some districts does not prevail here. The market is widening, and the demand is increasing. Not by spurts and jumps is it coming, but gradually and evenly, showing it to be healthy. A comparison of sales this month with preceding months back to last October shows largest quantity sold in March. Quotations continue the same irregularity heretofore reported. Interests north of us have entered the market, offering concessions, and this had made it necessary for this district to offer equally advantageous terms, in some cases, to protect their trade. To what extent this has prevailed is, of course, the seller's secret. But from appearances one would conclude that it was very limited. There is neither a combination of interests to protect the market, nor any mutual understanding or effort as to uniformity of price. Each interest is influenced by its personal surroundings. It therefore happens that one interest refusing for a certain grade what a competitor will promptly accept will, in turn, close trade for another grade that its competitor would decline. In such a condition of the market it is impossible to quote figures of some actual transactions. Cut prices are usually laid, face down, in the private drawer. These concessions, though, constitute the exceptional cases, and it is not fair to quote these prices as the market. An examination of the week's sales of one interest showed no entry of a single sale below official quotations. So there must be more smoke than fire in the reports of anxious sellers here at lowered prices.

The export trade has been picking up again, and freight room obtainable has been engaged. Your correspondent has endeavored to arrive at some approximation of the extent of this trade. From

good sources it is learned that it varies from 25 to 40 per cent. of the output of the interests engaged in it. But a short time back it ran as high as 60 per cent. of the output. The appearances indicate that it has come to stay.

The powder works which we had established on paper several months ago has come to the front again, with pretty sure prospects of practical realization this time. The Louisville & Nashville Railroad has donated the land desired, and subscriptions to the stock indicate that the \$50,000 capital stock required will be raised. At a meeting of the shareholders of the print mill, held the past week, an organization was effected, and the officers of the company were elected and the declaration was made that no time would be lost in initiating work on it. There will be a great effort made to have this mill commence operations before the close of the year. The ground for the buildings is staked off; the plans were prepared and accepted in advance. Everything is ready to begin work. At the rolling mills interest is centred in the steel plant. Workmen are clearing the site for the buildings and making ready for the foundations. Material that had to be obtained elsewhere is now in transit. By fall they will be rolling steel. It is gratifying to be able to say of these enterprises that they have passed the stage of probabilities and will soon appear on the stage of action.

The auditorium, that held fire for so long a time, is near completion. It will always be pointed to as indicating the beginning of a united effort on the part of the people here to accomplish desired ends.

The minor industries continue to make good reports. Much figuring is still being done on contracts for outside points. As illustrating the increasing reputation of our industries here for doing particular work, it is mentioned that a request was received from Low Moor, in Virginia, to make price on twelve large boilers and accompanying stacks. The freight rate is an obstacle insurmountable to obtaining the contract. The Warrior Machine Co. reports a comfortable business. Among its sales was one Worthington pump which required a car for its transportation. The Birmingham boiler works of Crellin & Co. reports shipment of completed boiler contract and the near completion of boilers for the Alabama Brewery here. They are riveted by the only hydraulic riveter in use in the South, excepting one small one in use at New Orleans. At the Decatur Car Wheel Works business shows an increase over the corresponding time in 1896, and the prospects for its continuance are favorable. The Soil Pipe Works are operating full force, and reports a steady business, fully up to expectations. It has abandoned the system of business of "future contracts," and is aiming to supply immediate or nearby wants. In no instance have complaints, which but a short time back was "the burden of their song," been made of want of work.

In real estate it is noted that the interest in it is growing. This is evidenced of late by several transactions of an investment character. It is also evidenced by the erection of dwellings in all parts of the city, a large per cent. of them of a character indicating faith in the future. But there is no boom, and there never will be again while the result of the first one lingers in memory. It was estimated during the depression that fully 10,000 people left Birmingham. Houses of every description sought tenants to make insurance of value. The tenant named the rent, and the landlord was glad to accept, for vacant houses were in every block. Now the 10,000 have returned, and more besides, and the note of improvement is

both seen and heard on every hand. It is so manifest that a blind man could almost see it. We have a few croakers yet—men who can't see any improvement because it hasn't come to them. But every community has a sprinkling of that element, who illustrate in their acts the truth of the old saying, "There is none so blind as those who won't see." J. M. K.

Industrial Improvement at Louisville, Kentucky.

[Special Cor. Manufacturers' Record.] Louisville, Ky., March 29.

The long-continued cry of hard times has dampened the ardor of people, and business has felt its effects. Confidence, however, is gradually regaining among the people, and albeit its development be slow, as marks the convalescence of an invalid, it is sure.

Money is slowly leaving its holes and seeking the channels of business. We note considerable activity in this community.

In the electric elevator building line, the Sulzer-Vogt Machine Co. is building four passenger and two freight elevators for parties in this city and State, in Detroit and Chicago; Geiger, Fiske & Co. have contracts for half a dozen now on hand, and report larger number of inquiries for elevators now than ever before. The latter firm expects to do a larger business in elevators this year than in any previous year.

Sulzer & Abell are putting up six freight electric elevators for M. T. Leuman at Atlanta, and a passenger elevator for C. I. Williams at Dayton, Ohio; also a freight elevator for the Kentucky Jeans Clothing Co., of this city.

The Bourlier Cornice & Roofing Co. reports much activity in house building here and elsewhere. Among other orders of this company, we note its copper, galvanized iron, skylight and slate work on the Markham House, Atlanta; its tin and galvanized iron skylight work in the large department store to be constructed by Herman Straus in this city, with a steam electric plant on the inside; similar work at the Feeble-Minded Institute, Frankfort, Ky., and at the new Madison (Ind.) Custom-house; the conduit pipes put in at the Finzer Bros. Tobacco Works, and the same being put in for the new switchboard of the Ohio Valley Telephone Exchange, this city.

The Lithgow Manufacturing Co. is not complaining of hard times. It reports more contracts being made for hot-air furnaces than ever before, besides, it is placing large orders for fire-place trimmings in the East.

Hoffman, Ahlers & Co., after recently remodeling the Wright & Taylor distillery at Chapez, Ky., are now erecting the 600 bushels a day copper work for Bernheim Bros.' new distillery out on Seventh street, this city.

The Sulzer-Vogt Machine Co. is putting up, in addition to the elevators spoken of above, a 30-ton ice plant for Simon Bros., this city, two 20-ton ice plants for the Pure Ice & Cold Storage Co., Springfield, Ill., and the Central City Ice Co., of Macon, Ga.; three 10-ton ice plants, respectively, for each of the following: W. H. Hunter, Owensboro, Ky.; Fasig & Perrine, Anna, Ill., and Beare Bros., Humboldt, Tenn.; also a six-ton ice plant for James M. Loer, Tipton, Ind. In connection with this it may be proper to say, at this point, that the Central Asylum, at Anchorage, Ky., projects putting up an ice plant and running a sewer from that location to the Ohio river, but this work is conditioned upon an appropriation by the legislature. The appropriation is expected from the present extra session.

With reference to plows, the Bunley,

Mills & Hardy Co. report active business for the past season; the corporation now has in stock a smaller number of plows than at this season during the past seven years, having disposed of a larger number than in any year during that time.

B. F. Avery & Sons report an increase of 12½ per cent. in the volume of business during the season. As an evidence of their activity, they have been working seventy hours a week in the shops to catch up with orders. Orders had, then, to be declined, but having caught up, they are in a position to fill all now.

The Tobacco Warehouse & Trading Co., Richmond Maury, of Danville, Va., president, has all the plans arranged to erect its 160x100 feet warehouse on Magnolia avenue, between Tenth and Eleventh.

Sabine Pass's Importance.

Sabine Pass, Texas, March 27.

Editor Manufacturers' Record:

As Sabine Pass is attracting much attention, it may not be amiss to give facts about this port. Sabine Pass is twenty-eight miles south of Beaumont, eighty miles southeast of Houston, sixty miles east of Galveston, Texas, 280 miles west of New Orleans, La., and 760 miles south of Kansas City, Mo. Under an act of Congress of 1852 a survey of the Pass was made and a favorable report was given. Nothing, however, was done until 1873, when a resurvey was ordered, and upon the report of the engineer \$30,000 for dredging were appropriated. This gave only temporary relief, and all the surveys made previous to 1880 showed but six and one-half feet of water over the bar at mean low tide.

But jetty work was begun in 1883, and the survey work of 1887 showed an increased depth of eight and one-quarter feet. The work was continued as appropriations became available, and the survey of June, 1896, by United States Engineer James A. Quinn, showed a depth of twenty-five feet, and since then a number of vessels drawing twenty-two and twenty-four feet have passed over the bar with ease and perfect safety, while the harbor is pronounced as safe as any in the United States. Capt. Hans Nilsen, of the Norwegian bark Prince Leopold, recently certified that his vessel passed over the bar drawing twenty-three feet; that he was pleased with the port, and that the pilots are skillful, trustworthy and reliable.

The jetties now extend three and one-half miles into the Gulf, and though the work has already cost \$3,250,500, Congress has placed Sabine Pass on the continued list.

Some idea of the advantages gained in the matter of commerce may be had from the following figures: In 1895 there was less than 20,000,000 feet of lumber exported on sixteen feet of water. The export was increased to 32,000,000 in 1896, while the first two months of this year aggregate 16,500,000 feet, and the average cargo of vessels increased from 300,000 feet to 475,000 feet.

With the increased depth of water and new railroad facilities, there is no doubt that the exports of lumber will reach 300,000,000 feet a year, the tributary pine and cypress forests of Eastern Texas and Western Louisiana being estimated at 90,000,000,000 feet, cotton of the South and grain from the Middle and Western States should come here, and all these facts are inducements to the building of a large commercial city.

C. H. F.

E. B. Cushing has been appointed general superintendent of the Houston, East & West Texas Railroad.

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

President Martin Resigns.

A dispatch from Kansas City, Mo., announces the resignation of Prest. E. L. Martin, of the Kansas City, Pittsburg & Gulf, and the election of Vice-President A. E. Stilwell as his successor. Mr. Martin has been president of the company since it was organized, and his resignation is stated to be due to ill health. Mr. Stilwell has been instrumental in pushing the construction of the line, and will undoubtedly prove a most satisfactory successor to Mr. Martin.

Improving a New Orleans Road.

The present owners of the New Orleans & Southern road have completed extensive improvements. The track has been partly relaid with 60-pound steel rails and some additional rolling stock purchased, including five locomotives and a number of passenger cars. A round-house and machine shops are being built by the company in the suburbs of New Orleans. The main line extends from the city to Shell Beach, a summer resort twenty-nine miles distant. The securities of the road are largely held in Europe. H. Campbell is manager for the company.

Norfolk, Virginia Beach & Southern.

Work is now in progress changing the gage of the Norfolk, Virginia Beach & Southern road to standard, and rails are being received at Norfolk for this purpose. The company, it is stated, has decided to erect a depot and train shed in Norfolk to contain ten rooms for offices in addition to the usual waiting, ticket office, baggage-room, etc. The company has ordered ten passenger cars, three combination, three baggage and thirty-four freight cars, and, it is reported, has leased four locomotives for its service. As already stated in the Manufacturers' Record, arrangements have been made to run trains direct to Virginia Beach from points on the Norfolk & Western system.

A Hopeful Feeling in the South.

President Charles Parsons, of the South Carolina & Georgia road, is quoted as saying in Boston recently:

"I find a very hopeful feeling in the South, with business improving and the outlook very much better than for three months past. The people have sold their cotton for good prices, and business is picking up in the South. This is shown by the improvement in earnings in the Southern roads."

"The South Carolina & Georgia Railroad Co. for the past two weeks of March earned \$67,575, as compared with \$46,331 in the corresponding two weeks last year, a gain of \$21,344 in two weeks, and the earnings seem to be running at this rate right along."

A North Carolina Project.

At the last session of the North Carolina legislature a company secured a charter to build a road in that State, which, if completed, will have an important effect on its transportation interests. The line is planned to extend from Greenville or Washington to a connection with the Seaboard Air Line at some point near Raleigh, or to a connection with the Norfolk & Western system at Durham. It would reach several of the most important towns in Eastern North Carolina, and if built to either of the trunk lines mentioned would

give them an entrance into the extensive fruit and truck region of the State. It is stated that the promoting company will be fully organized in a few days. Among those interested are O. Hooker and F. G. James, of Greenville.

A New North Carolina Line.

A correspondent of the Manufacturers' Record at Aberdeen, N. C., states that the Moore County & Western road is being surveyed from Craigownie to Concord, N. C. Craigownie is the terminus of the Moore County Railroad, built by a New England and Scotch syndicate for lumber purposes. It is a standard-gage line, and will form a part of the Moore County & Western. To make the extension to Concord about fifty miles of new line will be required. At Aberdeen the Moore County & Western will reach the Seaboard Air Line, giving Concord, which is an important manufacturing town, another rail outlet in addition to the Southern. It is stated that the Moore County & Western Company will probably buy the Moore County line. The officers of the former company are: President, M. C. Wadsworth, Concord; treasurer, C. J. Brown, Roseland, N. C. George M. Clark, of the same place, also J. H. Waite, of Boston, Mass., are interested.

Pensacola, Alabama & Tennessee.

Relative to the proposed extension of the Pensacola, Alabama & Tennessee line, referred to in the last issue of the Manufacturers' Record, Henry McLaughlin, one of the owners of the road, writes the Manufacturers' Record from Pensacola, Fla., as follows:

"It is confidently expected by those who are well qualified to estimate the value of the facts that are considered sufficient justification for undertaking construction of this line of road that its merits will secure favorable consideration and action by capitalists now investigating the enterprise."

A charter has been obtained and the company incorporated in Alabama under the title of the Pensacola, Alabama & Tennessee Railroad Co., with principal offices in Birmingham. The capital is placed at \$100,000, of which over 10 per cent. is paid in. The incorporators are Messrs. Henry McLaughlin, L. Hilton Green, R. M. Robinson, A. C. Blount, Jr., C. W. Hagerman, Pensacola, Fla.; R. H. Elliott, H. G. Robinson and John H. Robinson, Birmingham; J. S. Foster and Robert L. Little, Jasper, and W. J. Hendley, Birmingham.

No Floating Debt on the Southern.

President Samuel Spencer, of the Southern Railway Co., has applied to the New York Stock Exchange to list \$1,523,000 first consol 5 per cent. bonds of the system. The bonds are divided as follows: The sum of \$29,000 takes the place of divisional bonds redeemed, and \$1,000,000 is the remainder of the amount issuable in 1896, under the following provision of article 1, section 7, viz.: "Upon January 1, 1896, or upon any day thereafter, but prior to December 31, 1896, upon such resolutions of the board of directors of the railway company, \$2,000,000 bonds at par shall be so certified and delivered."

Certificates have been filed with the trustee of the mortgage as to the purposes for which the proceeds of \$1,000,000 previously drawn under said section were expended. The two principal items among these expenditures were: Additions to shops at Knoxville and Atlanta, and shops at Salisbury (\$257,829.86), new equipment (\$347,349.84), all of which property is subject to the mortgage.

In connection with the proposed listing, President Spencer makes the assertion that the Southern has no floating debt. This statement is very encouraging to all interested in the welfare of the South. The Southern has been operated under the policy of the present administration since June 18, 1894, or nearly three years. When President Spencer assumed charge of the property it was in such a condition as to necessitate the expenditure of several million dollars for betterments of different kinds. In fact, the principal lines have been practically rebuilt since its reorganization. While provision was made in the reorganization plan for \$5,000,000 for this purpose, many improvements were required which were not estimated in the calculation, as is the case in the rehabilitation of all railroads. In spite of these extra items of expense, President Spencer, as already stated, reports that the company owes no floating debt whatever.

Chesapeake & Ohio Improvements.

A dispatch from Richmond announces that the city council of Manchester, in the suburbs of Richmond, has authorized the Chesapeake & Ohio Railroad Co. to alter a bridge across the James river. This gives the railroad company an opportunity to carry out the extensive terminal improvements it has planned at this point. They consist of a passenger station, roundhouse, freight-yard and terminal tracks. Owing to the hilly formation of the city and vicinity, an extensive system of viaducts is required. The total length of the elevated track and bridges will be about one mile, of which 4000 feet will be over the bed of the James river. The elevated track construction will begin at a point on the James River division of the road and follow the river around to the eastern part of the city, where it will connect with the Newport News division and the yards to be built at this point. At Nineteenth street a branch viaduct will be built to the passenger station, which is to be located so as to front on Main street, one of the principal thoroughfares of the city.

The viaduct over the river will be of what is known as the pin-connected steel truss type, supported on piers of masonry. The portion which crosses the streets will be double track and built of plate girders, with tower spans of thirty feet and intermediate spans varying from thirty to forty feet, except at railroad crossings, where unusually long girders will be required. Naturally, this portion of the improvement will be by far the most expensive.

The yards will have enough grade to admit of shifting cars by their own momentum in one direction. It is technically termed a "gravity yard." It will accommodate about 1300 cars when finished. The roundhouse will be large enough to hold fifty locomotives, and near it will be a coal station with forty pockets, as well as oil stations and water tank.

The passenger station will also contain the offices of the company. While fronting on Main street, it will have three entrances, one on Broad and one on Franklin, as well as Main. It is to be constructed of brick, with stone trimmings and steel interior supporting work. It will have the usual waiting rooms, offices for ticket and baggage agents, as well as restaurant, and will be heated by steam and lighted by electricity.

The improvement will give the Chesapeake & Ohio an opportunity to dispatch all its passenger trains from the same depot and to unite the James River and Cincinnati and Newport News divisions by a short route, avoiding transfers and

delays, as well as expediting the handling of freight trains. The estimated cost of the entire work is \$2,000,000, and the time of completing it about three years.

The Georgia & Alabama Railroad.

The development of the Georgia & Alabama Railroad under its present management, Mr. John Skelton Williams, of Richmond, being the president, has demonstrated the possibilities of some Southern railroads when wisely handled. Of this road and its active vice-president the Savannah (Ga.) News says:

"Vice-President and General Manager Gabbett, of the Georgia & Alabama Railroad Co., has a large force of hands at work regrading practically the entire line, and repairing all of the bridges. He has another force on duty in the shops repairing all of the rolling stock and putting it in first-class condition, so that it will be practically new when it is turned out.

"This is the result of a recent consultation on the part of the directors of the system, who have determined to put out considerable money in making the property equal, if not superior, to any railroad property in the South, and if they carry out their intentions they will come pretty near succeeding, if they do not even surpass their expectations.

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The report of the Northern Central Railway Co. for the month of February and the first two months of the present year has been made public, and shows a decided gain over 1896. The gross earnings were \$548,631.13, an increase of \$106,000, while the operating expenses decreased nearly \$13,000. The net earnings were \$205,628.32, an increase of \$118,749.49. For the two months the gain in net earnings was \$164,200.22.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

A Possible Weakness in Cotton-Milling

[Special Cor. Manufacturers' Record.]

Raleigh, N. C., March 30.

Proximity to the raw material, abundance of fuel and water-power, a mild and healthy climate, with low cost of living, are among the advantages which have convinced all who have given the matter much thought that the ultimate centre of cotton milling will be in the Southern States. All nature seems to intend it to be so, and Mother Nature usually wins the race.

There are mistakes, however, we should guard against. One is attempting to pay too large a dividend, instead of reasonable profits to shareholders, and thereby accumulating a surplus fund for dull times, which are sure to come, and for improvements. It is a dangerous thing for a manufacturing company to pay out all of its profits in dividends, and if any are doing this, the sooner they "mend their ways" the better it will be for those who have their money invested in the enterprise.

Besides providing for the wear and tear incidental to all machinery, we should be able to replace it, and in every instance put in the newer and more improved forms, as improvements or additions are made. It has been truly said that improved machines will sometimes effect a saving of such importance as to justify one in throwing away older styles of machines absolutely. At least 5 per cent. of the machinery account should be set aside each year for such use. In the race after paying big dividends, let us not "kill the goose which lays the golden egg" by not keeping our machines up to date.

There is a homely old saying to the effect that many enterprises come to grief from "trying to do a two-horse business on a one-horse capital," and this is applicable to cotton mills, which are handicapped from the start, inasmuch as they must depend on commission houses to handle their product and to make advances. "He that goes a-borrowing, goes a-sorrowing," and no mill can be independent in its traffic if the output is so controlled. It is all right for a mill to sell its product through a commission merchant, and with some lines of goods it would be next to an impossibility to place them in any other way. But the point we wish to make is, that a mill should have sufficient working capital to be able to wait until the money is due, instead of having to draw on the commission house every time a shipment is made.

A few men in a city or town get together and agree to build a cotton factory. They fix the capital stock at \$100,000, and before the amount is subscribed "ground is broken" and the work begins. When the building is up, machinery in and everything ready to start up, they find the plant has cost "a little more than they expected," to wit, \$120,000, instead of \$100,000. They arrange with the machinery men to carry the \$20,000, and depend upon the commission merchant to furnish the capital. This is a grave mistake, and one often made by Southern mills. While the profit on staple goods is always low enough, and lately shaved still lower, the additional drain of the commission house may make a serious leak in the ship.

The Southern mill manager is likely to be an optimist in his belief that all rising prices will go still higher, or that a falling market is without bottom. With such a belief he is apt to make a losing

deal with either horn of the dilemma, while the man of cool judgment and moderate ideas can steer clear of either rock into a sea of moderate profits and safe business. If the writer had one-tenth of the money which has been lost in the last few years by Southern mills on account of buying high-priced cotton and piling it up to be used during the "cotton famine" which "would surely come," he would bid farewell to the cotton-milling business for all time.

Another very important matter is economy. And by this it is not meant that a mill should have cheap officers, cheap superintendent, cheap overseers or cheap help, for any of these might prove most expensive in the end. It is very easy for a large mill to have one or two dozen hands more than are really needed. This is not economy, but extravagance. The purchasing agent can practice economy in a great many things. Mills are constantly needing supplies, and it is very easy to buy a great deal more than is really needed, or some worthless article. The best is cheapest in the long run.

The cotton-mill operatives in the South are as good as anywhere, and in some respects superior to those of the New England States. In every way they are preferable to foreign help. While not having perhaps so high a degree of technical skill as the average Eastern operatives, they have the capacity of readily acquiring it when needed. They should be well taken care of, and employers should show greater interest in their comfort and welfare. Such treatment always increases their self-respect, and they will render more cheerful and better service to the employer who so regards them. It will improve the quality and quantity of their work, to say nothing of the hygienic and moral improvement in their home life, for which the employer is indirectly more or less responsible.

But little if any fine goods are manufactured in North Carolina, and it is in that direction we should turn our attention. It is in the finer goods that the greater profit lies, while the sharp competition and perhaps overproduction have cut the margin of profit on coarse goods very close indeed.

It would be interesting to know the ratio of profit per pound of cotton, whether it goes into unbleached sheeting or a fine lawn, or to compare equal weights of materials made into heavy ginghams or into fine edgings. Could not somebody make comparative estimates on cotton made into twine and rope with the same when put into braids or spool thread? We need to look into these things. Many small and insignificant-looking enterprises return the best profits.

J. S. WYNNE.

The Cylindrical-Baling Plant at Somerville, Tenn.

The Somerville (Tenn.) Journal says:

"The cylindrical cotton-baling and compressing plant of the Somerville Mill & Gin Co. is bringing Somerville to the attention of the cotton world in no small degree. The location of the plant here is one of the best advertisements the town ever had."

The Journal gives some particulars of the recent visit of members of the American Cotton Growers' Association to this plant, and says:

"A large number of prominent cotton men of Memphis accompanied the party to Somerville, and were much interested in the process of making the cylindrical bale. The gin only had enough seed cotton on hand to make one bale, so when the visitors arrived the gins and compress were put in operation, and everything run as smoothly as could be in the presence of the large gathering of citizens

and visitors. A 450-pound bale, wrapped and ready for the cars, was turned out in just sixteen minutes.

"All the visitors were more than pleased with the success of the enterprise, and predicted a revolution in the method of handling our great staple. Among the many visitors who so expressed themselves were Mr. Henry Hatter, secretary of the Memphis Cotton Exchange, and quite a number of leading buyers and factors of that city.

"They were surprised at the simplicity of the machinery used in accomplishing the result and the compact manner in which the plant is built. All agreed that the general introduction of the system is a matter of only a short time."

The New Cotton Bale.

Under this heading the Columbus (Ga.) Enquirer-Sun says:

"The Manufacturers' Record was one of the first papers in this country to advocate the use of the cylindrical bale for packing cotton. It declares that the bale in use at present is the dirtiest and most expensive package that could be devised, and advises that the method of packing our cotton which will turn it out in cylinder form is the common-sense method, and the one which will be adopted as soon as its advantages become known.

"It is true that great complaint has been made against the American bale. Travelers in England say that the farmers of the South would be amazed if they could stand upon the docks at Liverpool or Manchester and see the cargoes of cotton as they are discharged. With bagging torn, ties broken, and the staple bedraggled and soiled, they are positively unrecognizable, and, as a matter of fact, the quality of the staple is injured and some of it lost.

"The claim for the new bale is that it cannot be burned, it takes little more than half the space of the old bale, is much easier handled, retains its shape under the roughest treatment, and added to this is a saving of at least \$4 from the time the bale leaves the field until it is consumed.

"The new bale is formed by wrapping cotton around an iron rod as it leaves the gin and subjecting it to great pressure. Its adoption means millions of dollars each year to the cotton-raising States of the Union."

The Manufacturers' Record has for years vigorously worked for the better baling of cotton. Old systems, however, are hard to change unless some radical innovation forces a revolution, and this is what the round bale seems destined to do. For a century there has been no improvement in the method of baling and covering cotton, but now that the round bale is coming to the front, it will compel an absolute revolution in the business. The clean, well-covered round bale will force every other bale to meet its competition, and hence force all ginners and compressors to improve their system of handling cotton. It is just such a change as we see in cotton manufacturing. The New England manufacturers, content with their business, for years ridiculed the possibility of the South becoming a competitor, but the revolution of successful Southern mills is forcing them to meet the situation by improving their own methods or by securing the advantages of the South by building in this section. The cotton-handling business is destined to undergo a revolution just as far-reaching and of just as much value to the whole South.

The New York Journal of Commerce in its last issue says:

"A letter has recently been received by Mr. A. B. Shepperson from D. C. Ball, manager of the Cotton Department of

the American Cotton Co., which controls the patents on the cylindrical baling machinery, commenting upon some of the points raised by the opponents of the system. The letter, in part, follows:

"Now, as to the objections raised:

"Objection No. 1.—'It is round.' Answer.—Any experienced warehouseman knows this is in its favor. Is a barrel or a box the easier handled?

"Objection 2d.—'A square bale can, of course, be packed with greater economy either in a ship's hold or a railroad car,' etc. Ans.—A 'square bale' is not square, but is a 'turtle-backed package,' occupying all the space of its largest dimensions, resulting in great waste, etc. In actual loading in car or in ship, or in warehouse, the round bale occupies less than 60 per cent. of the space of the ordinary compressed 'square bale.' We will submit all the proof that is required on this. The steamship lines recognize this by making their rate on the space occupied, making us a cut in rates of 20 to 35 per cent. As to the railroad question, we can overload any car in ordinary use, and that, too, with a freight almost entirely free from risk of fire or damage in case of wreck.

"Objection 3d.—'There is no reason why a square bale cannot be condensed as solidly as a round bale.' Ans.—Only three or four of the most powerful compresses in this country can reach about thirty pounds density per cubic foot in actual practice, and this is done at increased cost. They do better in India, where labor is so cheap. The round bale press, at a trivial first cost of machinery as compared with the 'compress' and at less expense of operation than the 'farmers' press,' regularly compressed to thirty-three to forty pounds density, and can materially increase that if it is desired.

"Objection 4th.—'There has been much difficulty in opening these bales.' Ans.—This is simply a case of 'has been.' The objection is absolutely removed and a guarantee given. Every bale as now made unrolls perfectly.

"Objection 5th.—'They will not unwind readily and (that) considerable loss has resulted to spinners on this account.' Ans.—The earliest made bales probably did not all unroll readily. Now they do completely; but that spinners suffered any loss thereby we question, for our guarantee to refund for any cotton not so opening or that was damaged, and for the labor employed in same, accompanied every contract and every bale, and we have never had a claim for a cent on either account.

"Objection 6th.—'I doubt whether these bales would stand fire in a warehouse better than the ordinary bale.' Ans.—If the gentleman making this statement cannot accept the evidence of an officially conducted most severe fire test, with results that were thoroughly convincing to all who are interested, then he will probably have to wait until the coveted opportunity he mentions presents itself. Meanwhile, we are satisfied with the insurance saving resulting from that test.

"Objection 7th.—'We are believers in the Indian method of baling. In India cotton is baled by a few large houses and is sold on their reputation (right here we tender thanks for this very strong endorsement of the method by which the round bale has been handled), while in this country it is baled at every plantation and must be sampled, and the round bale will not permit of sampling, from the fact that it is rolled.' Ans.—The gentleman is misinformed. The bale is sampled in process of making, and the system is such that the correctness of this original sample is certified through to the mills, making all subsequent sampling

unnecessary. With this is the guarantee as to the character of the bale, making examination unnecessary. From these results a great train of savings. But the bale can be sampled just the same as any other bale can.

"The objections of the other gentlemen quoted are answered fully in the above, except that I will add that if they prefer the third or fourth repetition of the weighing, examining and sampling of each bale, instead of applying to the handling of cotton the same economical methods as prevail in the handling of almost every other commodity, then there is nothing to prevent their so continuing as long as they can in competition with improved methods. That they can 'protect' themselves by the new method is perfectly evident.

"As to the objections raised by the gentleman who deals in 'bagging and ties,' I do not consider it necessary to make any answer, but merely say that the illustration he uses of the insurance companies having had to take a hand years ago to secure the introduction of iron ties instead of rope, is simply in line with our claims that almost every interest, insurance included, associated with the handling of cotton will unite in furthering the rapid introduction of the new system because of the savings it effects in every line that it touches. That New York interests will be foremost in this as rapidly as they investigate is evident."

Southern Cotton Goods for China.

A large shipment of cotton goods for China was made last week by two Southern mills, one at Pelzer and one at Piedmont, S. C. The shipment consisted of 2500 bales of cloth woven at these mills, and valued at \$100,000. Twenty cars were required to make the shipment, the train being dispatched by way of Lynchburg to the West, then over the Northern Pacific Railroad to Tacoma, whence the goods will be put aboard ship for Shanghai.

Cotton-Future Dealing.

The Cotton Growers' Association, at its late meeting at Memphis, passed the following resolution:

"Whereas, the New York and New Orleans Cotton Exchanges, the only two exchanges that deal in future contracts of cotton, in their rules have declared that cotton should be sold on a "basis" of middling, instead of defining clearly what the buyer is to receive and the seller is to sell; and

"Whereas, there is no other crop produced on this continent that is sold on a basis except cotton, and believing as we do that said rules are made in the interests of foreign consumers and against the interests of American producers, and that this rule, as is shown by facts from the different exchanges throughout the country, in our opinion, has been used to keep the value of contract cotton from one-quarter to one-half cent under a parity with the value of actual cotton for the past seven years; and

"Whereas, these said two exchanges are not being used by the producers of the country for the sale of their cotton, but, in our opinion, to depreciate values, as it is stated that no consumers of cotton ever receive from said exchanges cotton for consumption; and believing as we do that said rule is an uncommercial, unsound and unreasonable transaction, and is costing the South many millions of dollars annually; therefore, be it

"Resolved, That the Cotton Growers' Association of the United States respectfully requests, as a matter of simple justice to the suffering planters of the South and for the good of the nation, that the

New York and New Orleans Cotton Exchanges change their rules to the reasonable commercial rules governing all articles of commerce, and clearly define in their contracts what the buyer is to receive and what the seller is to deliver, and so state the same in the making of said contracts on date of same for future delivery of cotton by inserting, in lieu of 'basis middling,' 'average middling,' and if necessary to have two contracts, one for average middling and one for average low middling."

Adding 3500 Spindles.

The sale of the Mammoth Springs Cotton Mills, at Mammoth Springs, Ark., has been confirmed by the court, and the new owners will make extensive improvements to the plant. General Manager Willey is now in the East visiting machinery works with a view to contracting for 3500 additional spindles. The new machinery will increase the total number of spindles to 6500, and the daily capacity of cloth will be increased from 1000 to 3000 pounds of cloth. A number of new hands will be employed, and for a time operations will be continued day and night.

A \$500,000 Mill for Birmingham.

Reports to the Manufacturers' Record confirm the announcements that all arrangements have been completed which ensure for Birmingham, Ala., the location of the \$500,000 cotton mill which David Trainer and his associates have endeavored to establish in the South.

Birmingham investors will take \$250,000 worth of the stock in the company, and Mr. David Trainer, of Birmingham, (formerly of Fort Mill, S. C.,) the other half of the \$500,000.

The company has formally organized with B. B. Comer, of Birmingham, as president and treasurer; David Trainer, secretary, and the following directors: Messrs. B. B. Comer, Robert Jemison, W. J. Milner, David Trainer and M. V. Joseph, all of Birmingham; C. H. Hutchins, of Worcester, Mass.; D. M. Thomas, of Providence, R. I.; J. P. Wilson, of Charlotte, N. C., and H. S. Chadwick, also of Charlotte.

A site of twenty acres of land, with water-power available, has been donated as a site for the plant, and the plans for the buildings show a main structure of four stories, 286 feet long by 130 feet broad, which will cost \$100,000.

The equipment of machinery will consist of 30,000 spindles, 1000 looms and supplementary machinery.

Engineers have already commenced the work of laying off the ground for the plant, and it is expected that work on the buildings will be commenced next month.

Mr. David Trainer is to be superintendent of the mill when it is ready for operation.

Textile Notes.

The Jonesboro Cotton Mills, of Jonesboro, Tenn., is putting in new machinery preparatory to resuming operations next month.

L. N. Wilcox & Sons, of Tyron, N. C., have established a knitting mill for producing hosiery. The firm intends to manufacture about 300 dozen pairs of hose daily, and for power a water-power will be developed. Operations will be commenced by May 1.

The Roanoke Mills Co., of Roanoke Rapids, N. C., contemplates increasing its mill's equipment from 12,000 spindles to 20,000 spindles. At a meeting of the directors of the company, held last week, a committee was appointed to ascertain the cost of the improvements under consideration.

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It is announced that the A. B. Bulack Fruit Co., of Baltimore, has decided to operate a line of steamships from Baltimore to the city of Boca del Toro, Colombia. A fleet of three steamers will be placed in service, making weekly sailings. The import cargoes will consist principally of fruit, and it is expected to develop a business out of Baltimore in miscellaneous articles.

At the annual meeting of the Atlantic & Danville Company B. Newgass was re-elected president; Adam Tredwell, secretary and treasurer, and C. O. Haines, general manager. President Newgass has issued a circular announcing the following appointments: Charles O. Haines, formerly superintendent and chief engineer, general manager; William H. Taylor, formerly general freight and passenger agent, traffic manager.

The report of the Northern Central Railway Co. for the month of February and the first two months of the present year has been made public, and shows a decided gain over 1896. The gross earnings were \$548,631.13, an increase of \$106,000, while the operating expenses decreased nearly \$13,000. The net earnings were \$205,628.32, an increase of \$118,749.49. For the two months the gain in net earnings was \$164,200.22.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

A Possible Weakness in Cotton-Milling

[Special Cor. Manufacturers' Record.]

Raleigh, N. C., March 30.

Proximity to the raw material, abundance of fuel and water-power, a mild and healthy climate, with low cost of living, are among the advantages which have convinced all who have given the matter much thought that the ultimate centre of cotton milling will be in the Southern States. All nature seems to intend it to be so, and Mother Nature usually wins the race.

There are mistakes, however, we should guard against. One is attempting to pay too large a dividend, instead of reasonable profits to shareholders, and thereby accumulating a surplus fund for dull times, which are sure to come, and for improvements. It is a dangerous thing for a manufacturing company to pay out all of its profits in dividends, and if any are doing this, the sooner they "mend their ways" the better it will be for those who have their money invested in the enterprise.

Besides providing for the wear and tear incidental to all machinery, we should be able to replace it, and in every instance put in the newer and more improved forms, as improvements or additions are made. It has been truly said that improved machines will sometimes effect a saving of such importance as to justify one in throwing away older styles of machines absolutely. At least 5 per cent. of the machinery account should be set aside each year for such use. In the race after paying big dividends, let us not "kill the goose which lays the golden egg" by not keeping our machines up to date.

There is a homely old saying to the effect that many enterprises come to grief from "trying to do a two-horse business on a one-horse capital," and this is applicable to cotton mills, which are handicapped from the start, inasmuch as they must depend on commission houses to handle their product and to make advances. "He that goes a-borrowing, goes a-sorrowing," and no mill can be independent in its traffic if the output is so controlled. It is all right for a mill to sell its product through a commission merchant, and with some lines of goods it would be next to an impossibility to place them in any other way. But the point we wish to make is, that a mill should have sufficient working capital to be able to wait until the money is due, instead of having to draw on the commission house every time a shipment is made.

A few men in a city or town get together and agree to build a cotton factory. They fix the capital stock at \$100,000, and before the amount is subscribed "ground is broken" and the work begins. When the building is up, machinery in and everything ready to start up, they find the plant has cost "a little more than they expected," to wit, \$120,000, instead of \$100,000. They arrange with the machinery men to carry the \$20,000, and depend upon the commission merchant to furnish the capital. This is a grave mistake, and one often made by Southern mills. While the profit on staple goods is always low enough, and lately shaved still lower, the additional drain of the commission house may make a serious leak in the ship.

The Southern mill manager is likely to be an optimist in his belief that all rising prices will go still higher, or that a falling market is without bottom. With such a belief he is apt to make a losing

deal with either horn of the dilemma, while the man of cool judgment and moderate ideas can steer clear of either rock into a sea of moderate profits and safe business. If the writer had one-tenth of the money which has been lost in the last few years by Southern mills on account of buying high-priced cotton and piling it up to be used during the "cotton famine" which "would surely come," he would bid farewell to the cotton-milling business for all time.

Another very important matter is economy. And by this it is not meant that a mill should have cheap officers, cheap superintendent, cheap overseers or cheap help, for any of these might prove most expensive in the end. It is very easy for a large mill to have one or two dozen hands more than are really needed. This is not economy, but extravagance. The purchasing agent can practice economy in a great many things. Mills are constantly needing supplies, and it is very easy to buy a great deal more than is really needed, or some worthless article. The best is cheapest in the long run.

The cotton-mill operatives in the South are as good as anywhere, and in some respects superior to those of the New England States. In every way they are preferable to foreign help. While not having perhaps so high a degree of technical skill as the average Eastern operatives, they have the capacity of readily acquiring it when needed. They should be well taken care of, and employers should show greater interest in their comfort and welfare. Such treatment always increases their self-respect, and they will render more cheerful and better service to the employer who so regards them. It will improve the quality and quantity of their work, to say nothing of the hygienic and moral improvement in their home life, for which the employer is indirectly more or less responsible.

But little if any fine goods are manufactured in North Carolina, and it is in that direction we should turn our attention. It is in the finer goods that the greater profit lies, while the sharp competition and perhaps overproduction have cut the margin of profit on coarse goods very close indeed.

It would be interesting to know the ratio of profit per pound of cotton, whether it goes into unbleached sheeting or a fine lawn, or to compare equal weights of materials made into heavy ginghams or into fine edgings. Could not somebody make comparative estimates on cotton made into twine and rope with the same when put into braids or spool thread? We need to look into these things. Many small and insignificant-looking enterprises return the best profits.

J. S. WYNNE.

The Cylindrical-Baling Plant at Somerville, Tenn.

The Somerville (Tenn.) Journal says:

"The cylindrical cotton-baling and compressing plant of the Somerville Mill & Gin Co. is bringing Somerville to the attention of the cotton world in no small degree. The location of the plant here is one of the best advertisements the town ever had."

The Journal gives some particulars of the recent visit of members of the American Cotton Growers' Association to this plant, and says:

"A large number of prominent cotton men of Memphis accompanied the party to Somerville, and were much interested in the process of making the cylindrical bale. The gin only had enough seed cotton on hand to make one bale, so when the visitors arrived the gins and compress were put in operation, and everything run as smoothly as could be in the presence of the large gathering of citizens

and visitors. A 450-pound bale, wrapped and ready for the cars, was turned out in just sixteen minutes.

"All the visitors were more than pleased with the success of the enterprise, and predicted a revolution in the method of handling our great staple. Among the many visitors who so expressed themselves were Mr. Henry Hatter, secretary of the Memphis Cotton Exchange, and quite a number of leading buyers and factors of that city.

"They were surprised at the simplicity of the machinery used in accomplishing the result and the compact manner in which the plant is built. All agreed that the general introduction of the system is a matter of only a short time."

The New Cotton Bale.

Under this heading the Columbus (Ga.) Enquirer-Sun says:

"The Manufacturers' Record was one of the first papers in this country to advocate the use of the cylindrical bale for packing cotton. It declares that the bale in use at present is the dirtiest and most expensive package that could be devised, and advises that the method of packing our cotton which will turn it out in cylinder form is the common-sense method, and the one which will be adopted as soon as its advantages become known.

"It is true that great complaint has been made against the American bale. Travelers in England say that the farmers of the South would be amazed if they could stand upon the docks at Liverpool or Manchester and see the cargoes of cotton as they are discharged. With bagging torn, ties broken, and the staple bedraggled and soiled, they are positively unrecognizable, and, as a matter of fact, the quality of the staple is injured and some of it lost.

"The claim for the new bale is that it cannot be burned, it takes little more than half the space of the old bale, is much easier handled, retains its shape under the roughest treatment, and added to this is a saving of at least \$4 from the time the bale leaves the field until it is consumed.

"The new bale is formed by wrapping cotton around an iron rod as it leaves the gin and subjecting it to great pressure. Its adoption means millions of dollars each year to the cotton-raising States of the Union."

The Manufacturers' Record has for years vigorously worked for the better baling of cotton. Old systems, however, are hard to change unless some radical innovation forces a revolution, and this is what the round bale seems destined to do. For a century there has been no improvement in the method of baling and covering cotton, but now that the round bale is coming to the front, it will compel an absolute revolution in the business. The clean, well-covered round bale will force every other bale to meet its competition, and hence force all ginners and compressors to improve their system of handling cotton. It is just such a change as we see in cotton manufacturing. The New England manufacturers, content with their business, for years ridiculed the possibility of the South becoming a competitor, but the revolution of successful Southern mills is forcing them to meet the situation by improving their own methods or by securing the advantages of the South by building in this section. The cotton-handling business is destined to undergo a revolution just as far-reaching and of just as much value to the whole South.

The New York Journal of Commerce in its last issue says:

"A letter has recently been received by Mr. A. B. Shepperson from D. C. Ball, manager of the Cotton Department of

the American Cotton Co., which controls the patents on the cylindrical baling machinery, commenting upon some of the points raised by the opponents of the system. The letter, in part, follows:

"Now, as to the objections raised:

"Objection No. 1.—'It is round.' Answer.—Any experienced warehouseman knows this is in its favor. Is a barrel or a box the easier handled?

"Objection 2d.—'A square bale can, of course, be packed with greater economy either in a ship's hold or a railroad car,' etc. Ans.—A 'square bale' is not square, but is a 'turtle-backed package,' occupying all the space of its largest dimensions, resulting in great waste, etc. In actual loading in car or in ship, or in warehouse, the round bale occupies less than 60 per cent. of the space of the ordinary compressed 'square bale.' We will submit all the proof that is required on this. The steamship lines recognize this by making their rate on the space occupied, making us a cut in rates of 20 to 35 per cent. As to the railroad question, we can overload any car in ordinary use, and that, too, with a freight almost entirely free from risk of fire or damage in case of wreck.

"Objection 3d.—'There is no reason why a square bale cannot be condensed as solidly as a round bale.' Ans.—Only three or four of the most powerful compresses in this country can reach about thirty pounds density per cubic foot in actual practice, and this is done at increased cost. They do better in India, where labor is so cheap. The round bale press, at a trivial first cost of machinery as compared with the 'compress' and at less expense of operation than the 'farmers' press,' regularly compressed to thirty-three to forty pounds density, and can materially increase that if it is desired.

"Objection 4th.—'There has been much difficulty in opening these bales.' Ans.—This is simply a case of 'has been.' The objection is absolutely removed and a guarantee given. Every bale as now made unrolls perfectly.

"Objection 5th.—'They will not unwind readily and (that) considerable loss has resulted to spinners on this account.' Ans.—The earliest made bales probably did not all unroll readily. Now they do completely; but that spinners suffered any loss thereby we question, for our guarantee to refund for any cotton not so opening or that was damaged, and for the labor employed in same, accompanied every contract and every bale, and we have never had a claim for a cent on either account.

"Objection 6th.—'I doubt whether these bales would stand fire in a warehouse better than the ordinary bale.' Ans.—If the gentleman making this statement cannot accept the evidence of an officially conducted most severe fire test, with results that were thoroughly convincing to all who are interested, then he will probably have to wait until the coveted opportunity he mentions presents itself. Meanwhile, we are satisfied with the insurance saving resulting from that test.

"Objection 7th.—'We are believers in the Indian method of baling. In India cotton is baled by a few large houses and is sold on their reputation (right here we tender thanks for this very strong endorsement of the method by which the round bale has been handled), while in this country it is baled at every plantation and must be sampled, and the round bale will not permit of sampling, from the fact that it is rolled.' Ans.—The gentleman is misinformed. The bale is sampled in process of making, and the system is such that the correctness of this original sample is certified through to the mills, making all subsequent sampling

unnecessary. With this is the guarantee as to the character of the bale, making examination unnecessary. From these results a great train of savings. But the bale can be sampled just the same as any other bale can.

"The objections of the other gentlemen quoted are answered fully in the above, except that I will add that if they prefer the third or fourth repetition of the weighing, examining and sampling of each bale, instead of applying to the handling of cotton the same economical methods as prevail in the handling of almost every other commodity, then there is nothing to prevent their so continuing as long as they can in competition with improved methods. That they can 'protect' themselves by the new method is perfectly evident.

"As to the objections raised by the gentleman who deals in 'bagging and ties,' I do not consider it necessary to make any answer, but merely say that the illustration he uses of the insurance companies having had to take a hand years ago to secure the introduction of iron ties instead of rope, is simply in line with our claims that almost every interest, insurance included, associated with the handling of cotton will unite in furthering the rapid introduction of the new system because of the savings it effects in every line that it touches. That New York interests will be foremost in this as rapidly as they investigate is evident."

Southern Cotton Goods for China.

A large shipment of cotton goods for China was made last week by two Southern mills, one at Pelzer and one at Piedmont, S. C. The shipment consisted of 2500 bales of cloth woven at these mills, and valued at \$100,000. Twenty cars were required to make the shipment, the train being dispatched by way of Lynchburg to the West, then over the Northern Pacific Railroad to Tacoma, whence the goods will be put aboard ship for Shanghai.

Cotton-Future Dealing.

The Cotton Growers' Association, at its late meeting at Memphis, passed the following resolution:

"Whereas, the New York and New Orleans Cotton Exchanges, the only two exchanges that deal in future contracts of cotton, in their rules have declared that cotton should be sold on a 'basis' of middling, instead of defining clearly what the buyer is to receive and the seller is to sell; and

"Whereas, there is no other crop produced on this continent that is sold on a basis except cotton, and believing as we do that said rules are made in the interests of foreign consumers and against the interests of American producers, and that this rule, as is shown by facts from the different exchanges throughout the country, in our opinion, has been used to keep the value of contract cotton from one-quarter to one-half cent under a parity with the value of actual cotton for the past seven years; and

"Whereas, these said two exchanges are not being used by the producers of the country for the sale of their cotton, but, in our opinion, to depreciate values, as it is stated that no consumers of cotton ever receive from said exchanges cotton for consumption; and believing as we do that said rule is an uncommercial, unsound and unreasonable transaction, and is costing the South many millions of dollars annually; therefore, be it

"Resolved, That the Cotton Growers' Association of the United States respectfully requests, as a matter of simple justice to the suffering planters of the South and for the good of the nation, that the

New York and New Orleans Cotton Exchanges change their rules to the reasonable commercial rules governing all articles of commerce, and clearly define in their contracts what the buyer is to receive and what the seller is to deliver, and so state the same in the making of said contracts on date of same for future delivery of cotton by inserting, in lieu of 'basis middling,' 'average middling,' and if necessary to have two contracts, one for average middling and one for average low middling."

Adding 3500 Spindles.

The sale of the Mammoth Springs Cotton Mills, at Mammoth Springs, Ark., has been confirmed by the court, and the new owners will make extensive improvements to the plant. General Manager Willey is now in the East visiting machinery works with a view to contracting for 3500 additional spindles. The new machinery will increase the total number of spindles to 6500, and the daily capacity of cloth will be increased from 1000 to 3000 pounds of cloth. A number of new hands will be employed, and for a time operations will be continued day and night.

A \$500,000 Mill for Birmingham.

Reports to the Manufacturers' Record confirm the announcements that all arrangements have been completed which ensure for Birmingham, Ala., the location of the \$500,000 cotton mill which David Trainer and his associates have endeavored to establish in the South.

Birmingham investors will take \$250,000 worth of the stock in the company, and Mr. David Trainer, of Birmingham, (formerly of Fort Mill, S. C.) the other half of the \$500,000.

The company has formally organized with B. B. Comer, of Birmingham, as president and treasurer; David Trainer, secretary, and the following directors: Messrs. B. B. Comer, Robert Jemison, W. J. Milner, David Trainer and M. V. Joseph, all of Birmingham; C. H. Hutchins, of Worcester, Mass.; D. M. Thomas, of Providence, R. I.; J. P. Wilson, of Charlotte, N. C., and H. S. Chadwick, also of Charlotte.

A site of twenty acres of land, with water-power available, has been donated as a site for the plant, and the plans for the buildings show a main structure of four stories, 286 feet long by 130 feet broad, which will cost \$100,000.

The equipment of machinery will consist of 30,000 spindles, 1000 looms and supplementary machinery.

Engineers have already commenced the work of laying off the ground for the plant, and it is expected that work on the buildings will be commenced next month.

Mr. David Trainer is to be superintendent of the mill when it is ready for operation.

Textile Notes.

The Jonesboro Cotton Mills, of Jonesboro, Tenn., is putting in new machinery preparatory to resuming operations next month.

L. N. Wilcox & Sons, of Tyron, N. C., have established a knitting mill for producing hosiery. The firm intends to manufacture about 300 dozen pairs of hose daily, and for power a water-power will be developed. Operations will be commenced by May 1.

The Roanoke Mills Co., of Roanoke Rapids, N. C., contemplates increasing its mill's equipment from 12,000 spindles to 20,000 spindles. At a meeting of the directors of the company, held last week, a committee was appointed to ascertain the cost of the improvements under consideration.

MECHANICAL.**NIAGARA FALLS POWER.**

Large Nut and Bolt Works to Be Operated by Electricity.

Although the transmission of power outside the limits of Niagara Falls is not

three-kilowatt, 125-volt bipolar machine. The switchboard is of panel type, built up of two panels, one for the generator, the other for the feeders. The generator panel carries potential indicator, two current indicators, field switch, main switch and two Carpenter enamel rheostats. The feeder board, in addition to the fuses, is equipped with four three-

girders down each side are four lines of channel iron in two sets, each set bolted back to back. Each line is separated from the other about twenty inches. Through the space between each pair of

upon a platform above the shafting in the centre of the shop, and are boxed in. The blower motor, directly connected to the blower, occupies a platform at the south end of the shop. The machinery

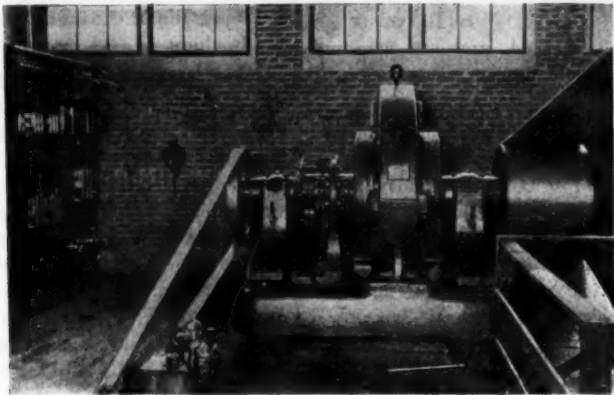


FIG. 1.—THREE-PHASE CENTRAL STATION.

yet three months old, a large nut and bolt works at North Tonawanda has been waiting, fully equipped for the appearance of the current, for the past year. These works, said to be the largest nut

blade knife switches, each controlling one circuit and labelled "cold press," "machine shop," "thread shop," "forge shop," respectively.

The forge shop, where the nuts and

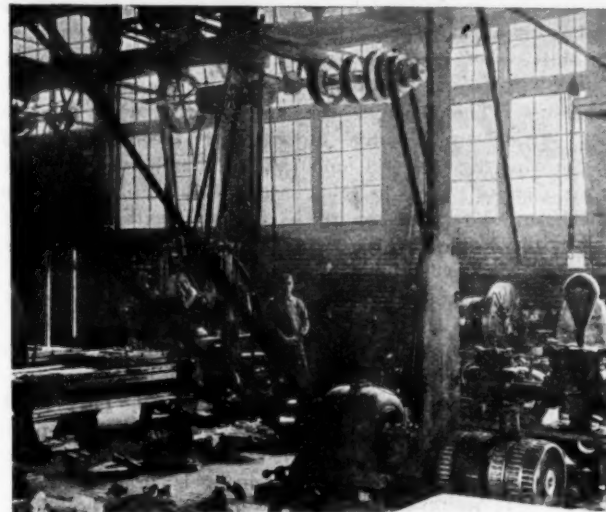


FIG. 2.—ONE CORNER OF THE MACHINE SHOP, SHOWING TWENTY HORSE POWER INDUCTION MOTOR.

channels pass long belts, which support the hangers for the shafting and allow of a ready rearrangement at any time.

driven by the motors in the forge shop are different sizes of bolt headers and nut punches and shearing machines for shearing the bolt lengths from the rod.

In the cold shop the pointing department is operated by one twenty horse-power motor, set on the floor and belted to jack shafts and countershafts as necessary.

In the machine shop, lying on the south side of the engine-room, is another twenty horse-power motor, also set upon the floor. It is used to drive a variety of tool-making machinery, such as planers, milling machines, drills, slotters, shapers, etc.

The threading and finishing shop, 400 feet long, is next in length to cold shop, which is 430 feet in length. In it the bolts and nuts travelling from the other shops are threaded and tapped and put together ready for the market.

This threading and tapping of the smaller pieces is effected automatically for some and semi-automatically for others, and in all cases the operations involve some of the prettiest automatic and semi-automatic work to delight the

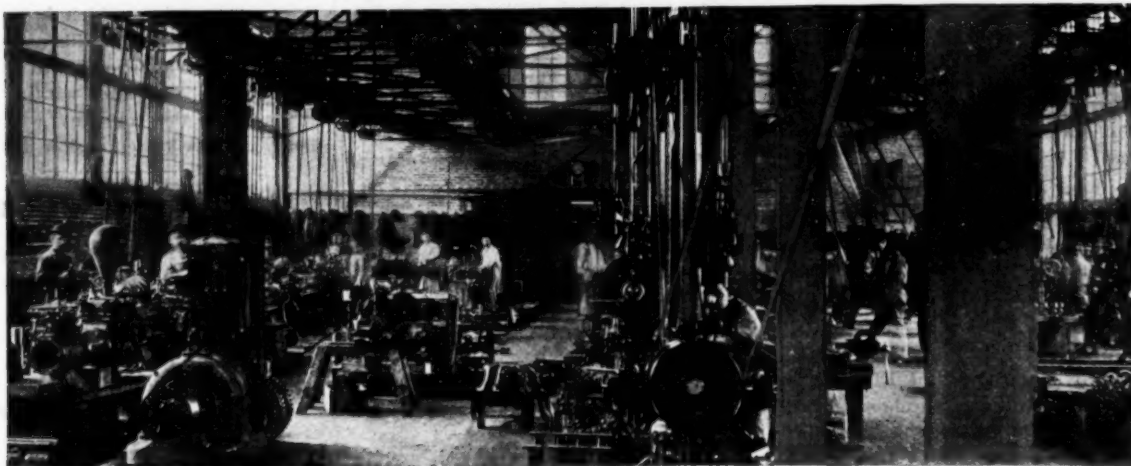


FIG. 3.—TWENTY HORSE-POWER INDUCTION MOTOR DRIVING TOOL-MAKING AND OTHER MACHINERY.

and bolt factory in the country, are those of Messrs. Plumb, Burdick & Bernard.

The three-phase system was chosen by the Niagara Falls Power Co. for the transmission of power from Niagara Falls to Tonawanda and Buffalo, and the bolt and nut works can be operated directly from the transmission line by simply connecting the necessary static transformers.

The factory of Messrs. Plum, Burdick & Bernard is situated at North Tonawanda, directly on the lines of the New York Central and Erie Railroads, and about half a mile from the route taken by the overhead wires of the Niagara-Buffalo transmission. All the work, with the exception of the cold work, starts at the forge shop and passes on through the various operations until it leaves the finishing shop ready for the market. There is no waste of labor and time passing material from different points in the shops. The progress is methodical, each succeeding operation being set next to the previous one.

Until Niagara power can be obtained the works are being operated from their own generating station, which will be abandoned as soon as the Niagara Power Co. is ready to tap the three-phase lines into the factory. The generating station is set between the cold and machine shops in the central building. Steam from the engine is supplied by three Riter Bros. return tubular boilers, each of 100 horse-power capacity. The engine is an improved Green of 400 horse-power, belted to a General Electric Co. three-phase, six-pole, 150-kilowatt, 25-cycle, 500 R. P. M. generator. The exciter is a

bolts are cut off from the raw rods and bars, is about 360 feet long, having the forges and machines set down each side of a central aisle, along which a track is

This method is adopted throughout the shop.

The forge shop contains five twenty horse-power General Electric induction

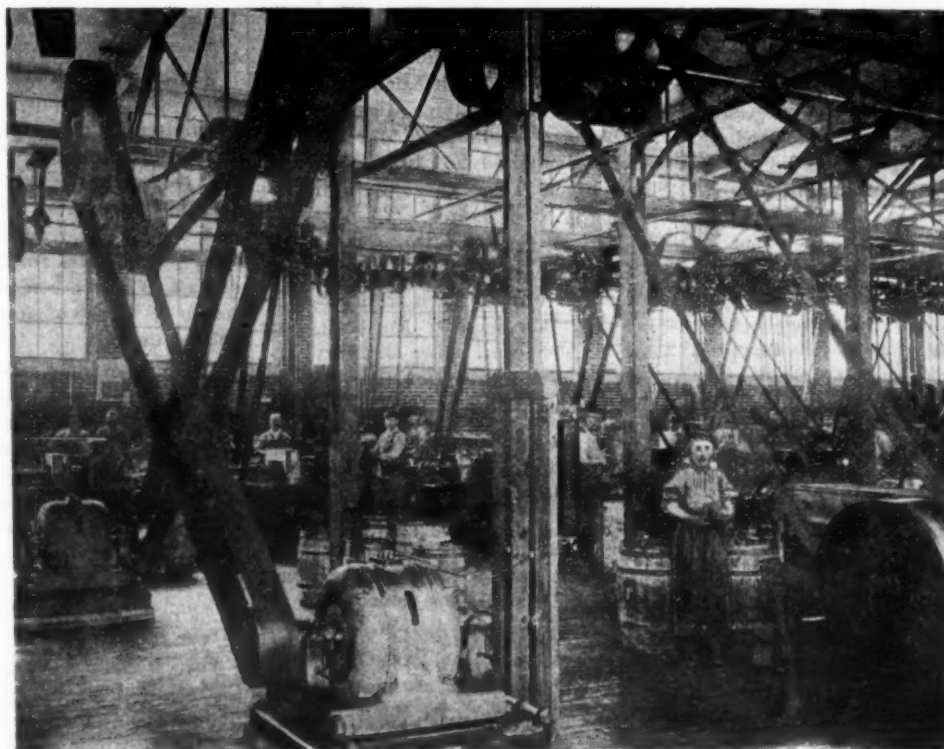


FIG. 4.—TWO TWENTY HORSE-POWER INDUCTION MOTORS IN THE THREADING AND FINISHING SHOP.

laid. Above the machines on each side runs a line of shafting, and in arranging the line of shafting Messrs. Plumb, Burdick & Bernard have adopted a very simple method. Suspended from the roof

motors, four driving the shafting and one operating a blower. The shafting is divided into four sections, and each one is belted to one of the induction motors.

The driving motors themselves are set

eye of the mechanic. The automatic nutters, which put the nuts upon the bolts, are more than human in their accuracy and speed.

This shop is driven by six six horse-

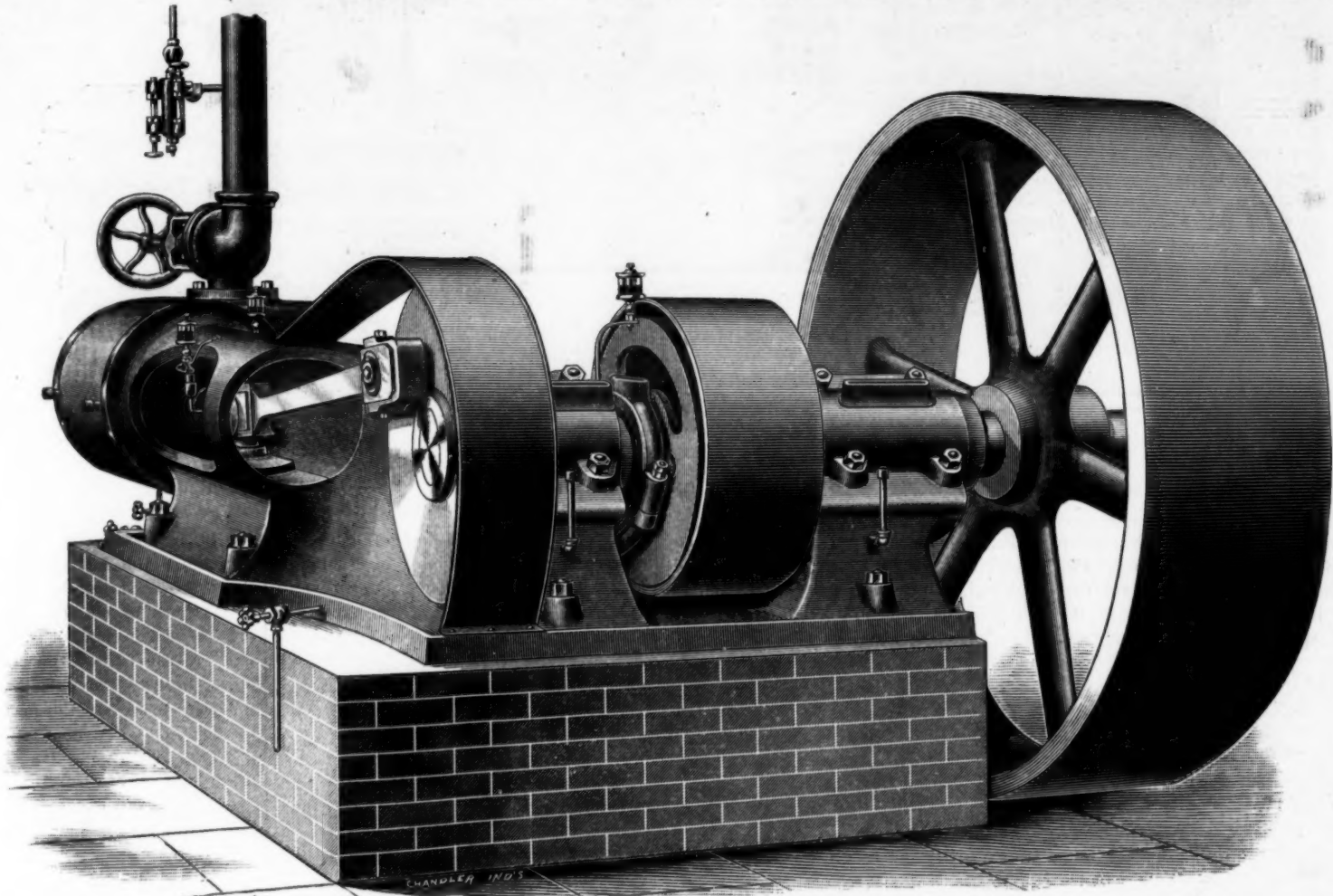
powers motors set on small platforms, and three twenty horse-power motors. The smaller motors and one twenty horse-power motor is used to drive the automatic and semi-automatic machines. For the former they are belted to jack shafts, from which belts are dropped to pulleys on a shaft running underneath the machinery. For the semi-automatic machinery the pulley is on the level of the machines, and is belted to the jack shaft above.

This company, the originator of the self-contained side-crank engine, has maintained in this automatic engine the same general form of bed as has been used for years on its throttling engines, with the necessary changes in the general outline to accommodate a shaft governor and the necessary additions to accommodate higher speeds. The main journal boxes of the bed are of the reservoir type, and are oiled by means of ring or chain oilers from the reservoir below.

well-known box-valve type, which requires little or no explanation. All surfaces of this valve are flat and parallel, and are free to expand and contract without distortion, and in the event of an accumulation of water in the cylinder the valve and pressure plate are arranged to give the necessary relief. Provision is made on the engine for properly taking up all wear as it occurs.

The Rites type of governor is used. It is a type of governor that embodies both

is 1 per cent. between full load and no close work regulation can be given absolutely the same under full load as under no load without fear of racing. Under the most sudden changes of load the governor will take care of the changed conditions and be again running steadily under the changed conditions within three revolutions and inside of one second of time. From its inertia principle the governor acts instantly with the change in load, and the regulation is practically



NEW TYPE AUTOMATIC ENGINE.

The other twenty horse-power motors are set on the floor, and are belted to shafting on the opposite sides of the shop, as shown in the illustration. These serve to drive the heavy threading and tapping work, not the automatic, and some idea of the variety of machinery in these shops, and the work the motors are called upon to do, may be gathered from the fact that the sizes of bolts made run from three-sixteenths of an inch up to one and one-half inches.

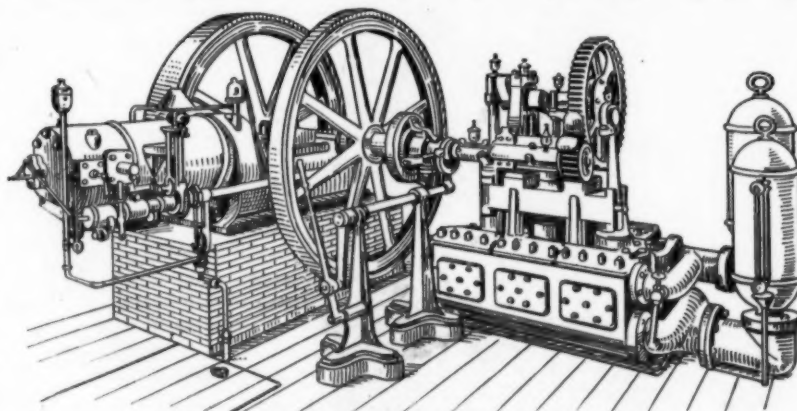
The advantages of electric drive are markedly noticeable in this plant. There are no separate engines for the individual shops, and no belt holes in the walls, as would have been the case had the steam-driving plant been confined to an outside building. The wires come through three small porcelain bushed holes in the wall of each shop. The central steam and generating station is confined to one room at present, and will probably shortly be entirely abolished. The motors in the forge shop occupy no space on the floor of the shop, and those in the other shops occupy either small space upon the floor or are erected on small platforms. They require no attention beyond the filling of oil wells, which is performed but once in six months. They are started by the throwing of a switch, and maintain a steady and constant speed under all conditions of load. This is noticeable in the quality of the output.

New Type Automatic Engine.

The accompanying illustration shows a new design of automatic engine which has just been brought out by Chandler & Taylor Co., of Indianapolis, Ind.

This method does not churn the oil, but permits it to return again to the reservoir, where the sediment may settle. These main journals have replaceable Babbitt linings, so that in the event of wear on the main journals of the engine the Babbitt can be replaced by new linings sent from the factory. The crank pin is oiled from the drip of the crank journal, the crank wheel being cored out and the crank pin drilled to con-

duct the oil from the face of the crank journal to the surface of the wrist pin. The reciprocating parts are not closed, but are open at all times for inspection. The cylinder is made with double walls. There is an air space between the inner and outer shell, and by means of this non-conducting air space radiation is prevented and condensation from this source is reduced to a minimum. The engine has a balanced valve of the



WATER-WORKS PLANT AT DUNDEE, ILLINOIS.

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occur from a gradual change in load; and thus, over a day's work, or over any period of time, whether the load be intermittent or whether it be a gradual change, the governor will hold the engine at a uniform speed throughout. Further than this, the speed of the engine can be altered by altering the tension of the spring, and without changing the weight, to a greater degree than has heretofore been considered possible. The usual limits under which the governor regulates

load, or vice versa. For exceptionally uniform under varying conditions of load and steam pressure.

The economy of this engine is claimed to be equal to the performance of the best engines of the same type and size, running under similar conditions of speed, steam pressure and load.

Otto Gasoline Engines.

The line drawing accompanying this article is made from a photo representing part of a water-works plant installed at Dundee, Ill., consisting of two No. 8 "Otto" gasoline engines of thirty-six actual horse-power each, direct connected to triplex pumps, built by Deming & Co., and having a capacity of 500,000 gallons per twenty-four hours.

The pumps receive their supply through 1000 feet of 10-inch pipe under a head of seventy feet, the supply being secured by impounding several springs, the delivery of which is made into a 300,000-gallon storage reservoir. The 10-inch pipe line runs from this reservoir. The discharge is to a standpipe of 100,000 gallons capacity, the pumps operating under a domestic pressure of thirty-five pounds per square inch, and a fire service pressure of 125 pounds per square inch. The plant illustrated was installed by Messrs. Henning & Hubbell, of Chicago.

The many advantages that gasoline engines possess for small water-works plants are rapidly being recognized by engineers, and within the last two years the Otto Gas Engine Works, of Philadelphia, have installed numerous engines for this purpose.

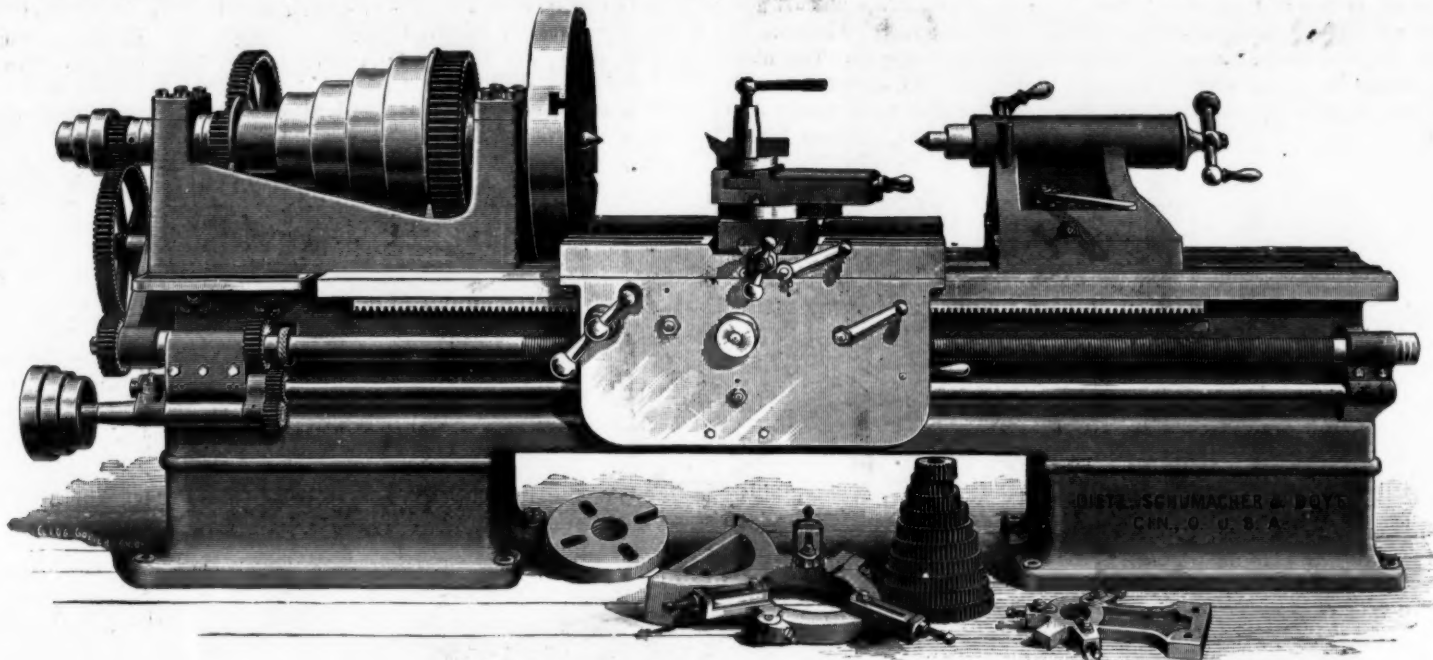
26-Inch Engine Lathe.

With a view to producing the greatest amount of work in a given time and of the best quality, Dietz, Schumacher & Boye, of Cincinnati, Ohio, have designed

six and one-half inches; swings over carriage, sixteen inches; distance between centres, three feet, of eight-foot bed; cone has five steps for three-and-one-half inch belt, largest sixteen inches diameter, smallest seven inches; tight and loose

ing a rigorous policy of push, as is evidenced by the active way in which it has already brought the particulars of its labelling and lacquering machines to the notice of those business houses who would profit by their adoption. In addi-

tion to a judicious display of attractive advertising, the company is issuing a neatly gotten up catalogue descriptive of the machines and submitting a number of strong testimonials from prominent



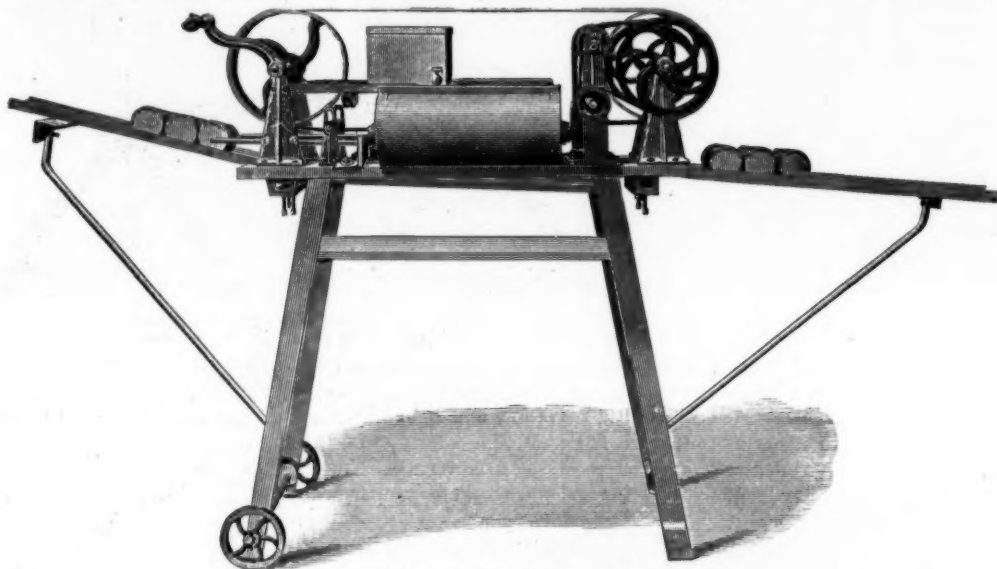
26-INCH ENGINE LATHE.

a 26-inch engine lathe for which a number of special features are claimed. For instance, the reverse movement for carrying feed in either direction is in the apron, and when the feed is engaged,

pulleys on countershaft, eighteen inches diameter, four-inch belt; speed of countershaft, 120 revolutions. This lathe will cut threads from one to thirteen, inclusive, including 11½-inch pipe thread.

tion to a judicious display of attractive advertising, the company is issuing a neatly gotten up catalogue descriptive of the machines and submitting a number of strong testimonials from prominent

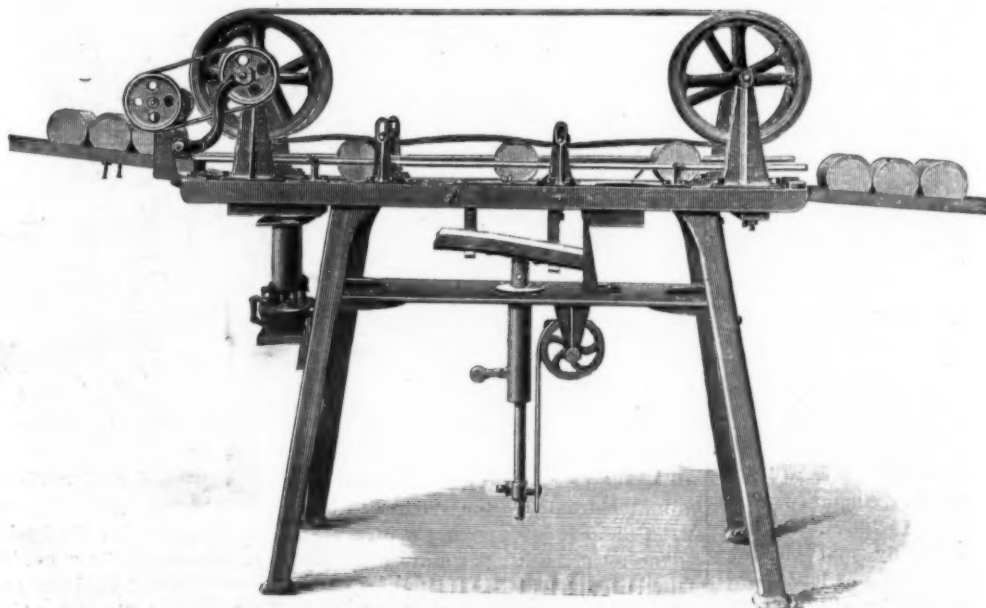
cently, in connection with the Western Canners' Canned Goods Association and the Atlantic States Packers' Association, and report excellent prospects, having orders and inquiries in hand from all parts of the United States, Canada and West Indies. The labelling machine is the perfected product of many years spent in overcoming tedious and perplexing problems and apparently insurmountable difficulties by costly experimenting on every conceivable method of labelling cans. The chief aim kept steadily in view by the inventor—previously known as a successful inventor of labor-saving machinery—was to provide a machine that would effect the work cheaply, rapidly and neatly, and yet be devoid of any mechanical complications, so that it could be easily operated by unskilled labor, and have no parts to break or get out of order. The lacquering machine meets a keenly felt want among the large packers, who, being alive to the supreme importance of putting neat, attractive packages in the hands of the trade, have hitherto lacquered by hand, at great inconvenience



BURT LABELLING MACHINE.

mechanism has been provided so that the half nuts cannot be engaged until the feed is disengaged. An eccentric clamp is provided, by simply moving which downward the carriage is firmly locked while the cross feed is at work.

The headstock is very massive, and fitted with bronze bearings. The spindle is extra large. The cone has five steps of extra large diameter, and is powerfully geared. The carriage is of much greater length and depth than usual, and there is a feed cone for operating it. The heavy tailstock is fitted with a spindle for long length of travel, and is provided with a tightener for taking up wear. The cross feed is easily engaged and disengaged. The bed is of greater depth than usual, and extraordinarily heavy. The apron is grooved into the carrier, making a solid fit without screws. The dimensions are as follows: Front bearings, four and three-eighths inches diameter, seven inches long; back bearings, three and one-half inches diameter, five and one-half inches long; nose on spindle, three and one-half inches diameter; hole in spindle, two and one-eighth inches diameter; centres conform to Morse taper, No. 5; swings over ways, twenty-



BURT LACQUERING MACHINE.

The Burt Machines.

Among the recently organized companies in Maryland, the Burt Labelling Machine Co. has lost no time in develop-

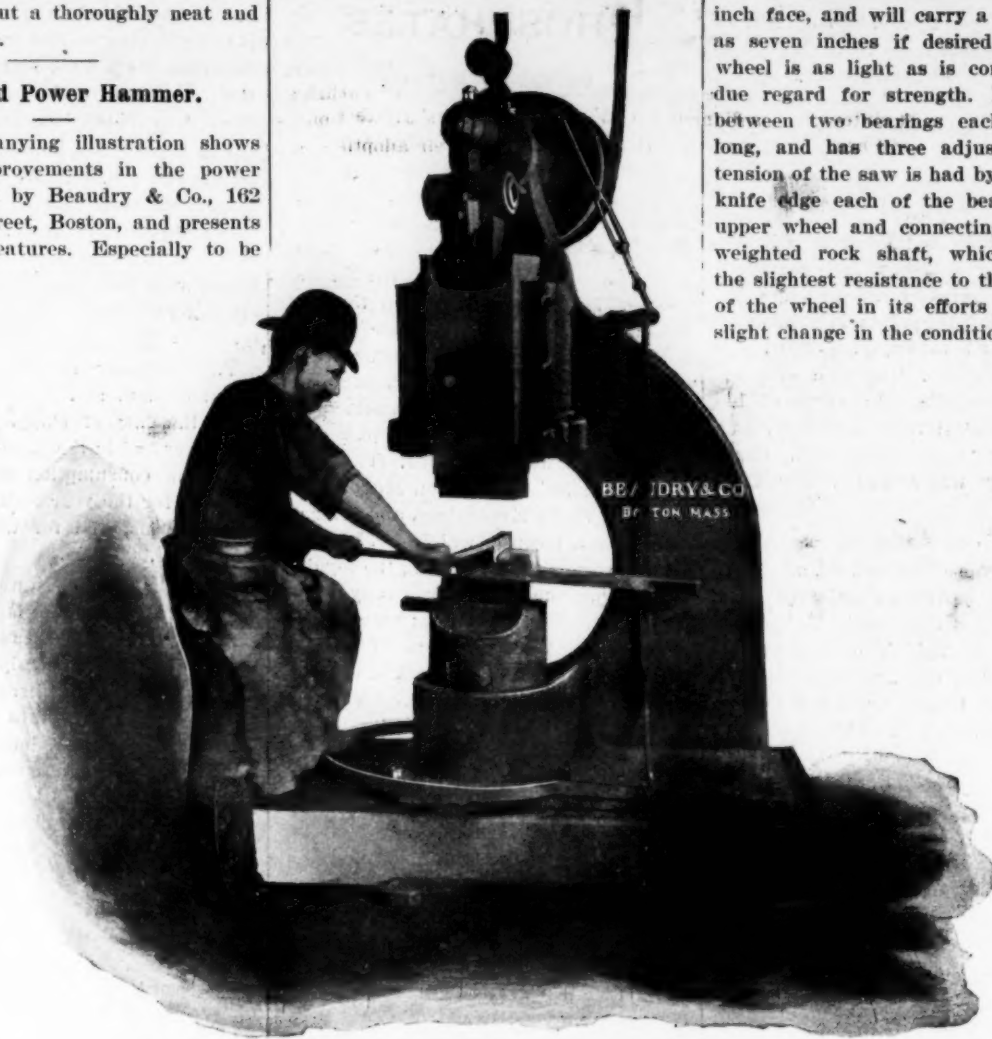
ing a rigorous policy of push, as is evidenced by the active way in which it has already brought the particulars of its labelling and lacquering machines to the notice of those business houses who would profit by their adoption. In addi-

tion to a judicious display of attractive advertising, the company is issuing a neatly gotten up catalogue descriptive of the machines and submitting a number of strong testimonials from prominent

sible to turn out a thoroughly neat and catchy package.

Improved Power Hammer.

The accompanying illustration shows the latest improvements in the power hammers built by Beaudry & Co., 162 Commercial street, Boston, and presents several new features. Especially to be



THE BEAUDRY CHAMPION POWER HAMMER.

noted is the manner of imparting to the head, or man, the force of blow, and securing its necessary elasticity of travel. The ram is a steel casting, with an internal concave track () shaped, as shown by the dotted lines on the ram. The two spring arms have rolls, which bear on this track. As the hammer-shaft revolves the arms lift and throw the ram, which acquires increased travel and force of blow, with increased speed of hammer. At full speed the ram delivers a very powerful blow, and returns from the work instantly without reaction or jump. This new design overcomes the use of any form of straps, helms or cushions. The box pillar frame is very rigid, and occupies small floor space. The anvil is an independent casting, with an adjustable shoe die. The shaft and crank pin run on bronze bushings; the crank pin is adjustable for varying lengths of stroke. Widely varying thicknesses of metal may be worked between the dies without changing the adjustment of the hammer, and succeeding blows may be struck on the flat and edge of the work. Full length bars can be worked either way of the dies. The steel ram runs in heavy guides, cast solid with the frame; it will remain at any desired position of its stroke when stopped. The force of the blow is under the perfect control of the operator, and may be of one pound to the full capacity of the hammer, according to the pressure on the foot treadle. In the illustration, which is of a hammer having a head weighing 350 pounds, the workman is cutting the end from a four-inch square piece which has been forged by the hammer to the shape shown in the same heat. These hammers are built in sizes having rams, or heads, weighing from thirty pounds to 500 pounds. They are adapted for a great variety of work, varying from very light to heavy railroad and machine forging, carriage work, axe work, hardware, cutlery, etc.; also for drop forging, as the hammer will strike a single or more heavy blows. Beaudry & Co. are

building eight of these hammers for one hardware company. They will send a new descriptive circular of this tool to anyone interested.

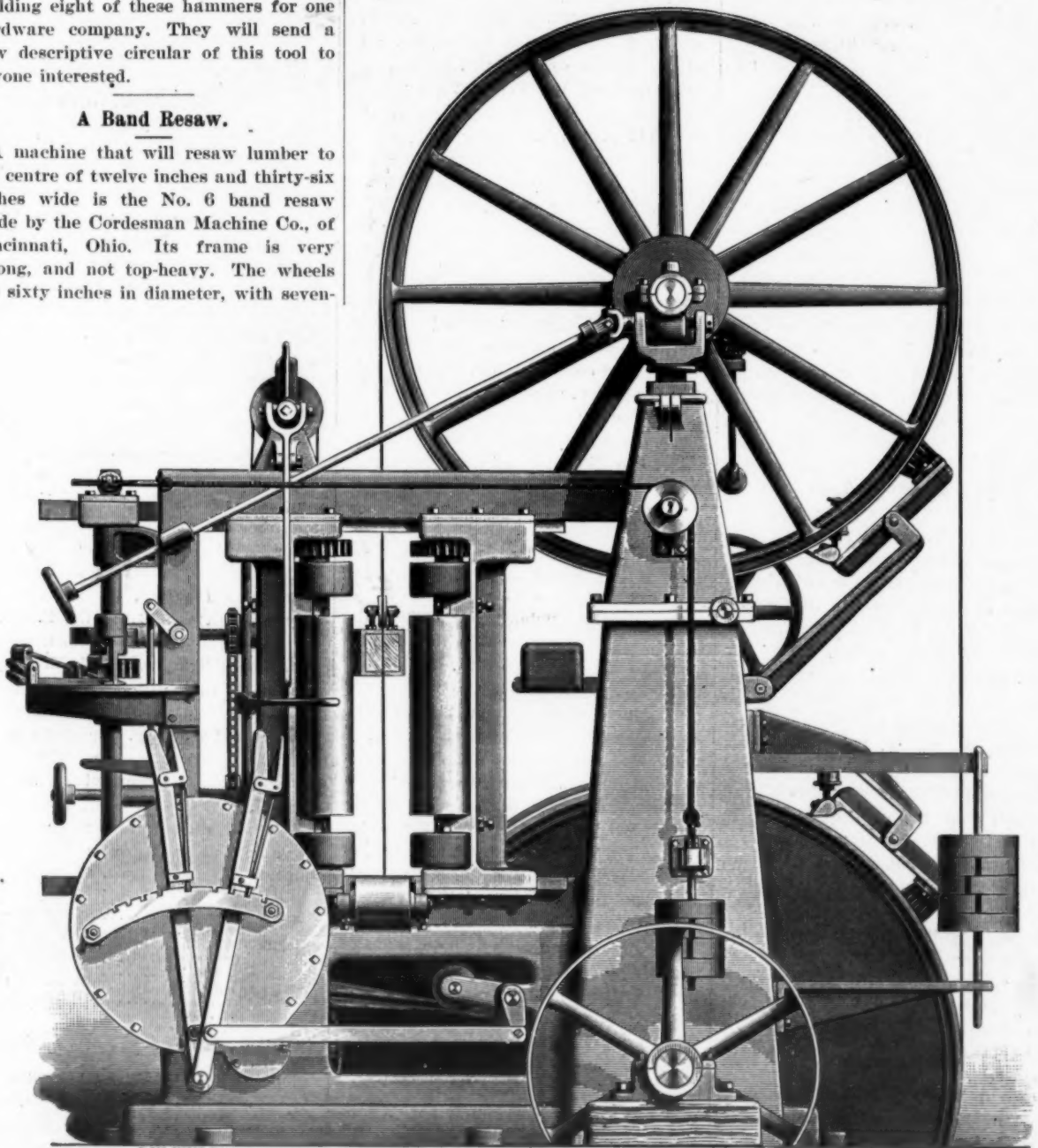
A Band Resaw.

A machine that will resaw lumber to the centre of twelve inches and thirty-six inches wide is the No. 6 band resaw made by the Cordesman Machine Co., of Cincinnati, Ohio. Its frame is very strong, and not top-heavy. The wheels are sixty inches in diameter, with seven-

inch face, and will carry a saw as wide as seven inches if desired. The upper wheel is as light as is consistent with due regard for strength. It is carried between two bearings each ten inches long, and has three adjustments. The tension of the saw is had by poising on a knife edge each of the bearings of the upper wheel and connecting them by a weighted rock shaft, which overcomes the slightest resistance to the free action of the wheel in its efforts to meet any slight change in the condition of the saw

blade instantaneously. The lower wheel is of iron entirely, with a web and no spokes. Its great weight gives a momentum to the saw blade and prevents it from overrunning and becoming slack on the cutting edge. The wheel shafts are of forged steel, four inches in diameter. There are four driven feed rolls eight inches in diameter, and two idler rolls coming within one inch of their centres to the saw, which permits sawing very short stock. The roller journals are adjustable independently, so that all the wear may be taken up and the rolls kept in perfect line with the saw blade. The rolls are instantly adjusted to suit different thicknesses of boards by a lever within easy reach of the operator. They are self-centring, and one set may be made stationary on its slides. They have a slide on top and bottom. There is no friction feed, but a belt drive on cone pulleys, using belts four inches wide. There are four different rates of feed between fifteen feet and sixty feet a minute. Two levers in front of the operator control the instant stopping and changing of the feed. The guides are of roller pattern, the saw touching the periphery of the wheel, and the side plates being wood soaked in oil. The upper guide is instantly raised and lowered by power. Tight and loose pulleys are thirty inches in diameter and 10-inch face.

The North Carolina Lumber Co. at Tillery, N. C., has completed its railroad several miles into the timber section, and is now hauling two trainloads of logs every day.



No. 6 BAND RESAW.

COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

Oil-Mill Superintendents.

The annual convention of the Oil Mill Superintendents' Association will be held at Houston, Texas, on May 5 and 6. This meeting will discuss the objects and purposes of the association, with a view to disabusing the minds of managers and owners of impressions that are held to be erroneous. The other topics to be considered are the value and use of cottonseed hulls as fuel, best methods of storing them, heaters and cooking, the construction and work of presses and kindred topics.

The Market for Cottonseed Products.

New York, N. Y., March 30.

The cotton-oil market has been more active during the week, but prices show no improvement. Refined oil is slightly lower in price, although a very considerable quantity has been purchased recently. Crude would appear to be in a better position, and reports from the South indicate that producers are holding their comparatively light stocks firmly, being confident of the future. Lard is yet unsettled, a declining tendency being the prevailing feature, May options, Chicago, today being 4.23 cents. Tallow is in a better position with regard to price and demand, 3½ cents being firmly quoted. The demand for compound lard is of a nominal character, and improvement in this respect can scarcely be expected with the pure product in the present unsatisfactory position. The prolonged period of dullness which the trade is passing through has been rarely if ever paralleled since the business assumed the proportions of a national industry. Summer yellow is selling at 23 cents, at which price exporters evince very little interest. Off-summer yellow has been sold at 22¼ cents, while prime crude, loose, is selling at 16 cents, with freight 37½ cents. This is a matter for surprise with reference to the low prices, more especially since France is contemplating the imposition of duties upon imported fats and greases generally. With this latter proposed measure established as law, cotton oil would naturally secure correspondingly increased attention. Considerable interest exists here with regard to the available oil stocks in this city and the country generally. A careful estimate would place the quantity in store here at about 15,000 to 16,000 barrels. It is difficult to even approximately estimate the quantity held in the South, as many of the mills are yet running, all previous estimates being merely guess work. The following are closing prices: Prime summer yellow, 26 to 27 cents; butter oil, 24 cents; prime summer yellow, 23 cents; off summer yellow, 22½ to 22¾ cents; prime crude, 20 to 20½ cents; off crude, 19 to 19½ cents; prime crude, loose, 16 to 16½ cents, and soap stock, ½c. Liverpool refined closes dull at 15s. 3d. Receipts at this port are comparatively light—3800 barrels. Exports for the week have been heavy, but are not representative of current transactions, being in the main the closing of old contracts. Nearly 14,000 barrels left this port, 12,800 of which were destined for Marseilles.

Cake and Meal.—The demand is dull, whether for home or foreign use. In the United Kingdom cake is moving slowly into consumption, and sellers in some instances have been obliged to reduce their

prices 2s. 6d. per ton. The shipment of 500 tons of meats from New Orleans to Rotterdam is a new feature with regard to the market for cottonseed products. No receipts of meal are reported at Eastern points.

Cottonseed-Oil Notes.

The Merchants and Planters' Oil Mill at Houston, Texas, having become dissatisfied with rates by rail on shipments of cottonseed from points in Louisiana, have concluded to experiment with a shipment by water. The first of these shipments, consisting of a cargo of 100 tons of cottonseed from Abbeville, La., arrived at Houston last week. Other shipments by water will follow from time to time.

Texas cottonseed-oil mills report but little demand for cottonseed oil, and there is very little movement expected until there is a further advance in lard, which may create a demand. The market closes dull, with prices easy, at Houston and other points in Texas. Cake and meal is considerably reduced and stocks are light, with shipments still going forward to Great Britain and the Continent. Prices on the Houston Cotton Exchange were reported as follows: Prime crude oil, loose, 16 cents; refined butter oil, nominal; prime summer yellow oil, 17½ cents; cake and meal f. o. b. mill at interior points, according to location, \$12.50 to \$14; cottonseed hulls, \$3 to \$4; market closed quiet.

The market for cottonseed products in New Orleans is quiet; prime crude oil in bulk, 15½ to 16 cents; prime summer yellow in barrels, 21 to 22 cents; meal and cake, \$16 to \$16.75 per short ton and \$17 to \$17.50 per long ton for export. Receivers' prices were quoted as follows: Cottonseed, \$7 per ton of 2000 pounds net to the mills, no commission of any kind to be added; cottonseed meal jobbing per carload at depot, \$16 to \$16.25 per short ton of 2000 pounds; for export, per long ton of 2240 pounds f. o. b., \$17.50 to \$17.75 for current month; oilcake for export, \$17.50 to \$17.75 per long ton f. o. b.; crude cottonseed oil at wholesale or for shipment, strictly prime in barrels, per gallon, 17 to 17½ cents; loose, per gallon, 15½ to 16 cents, according to location of mill; refined cottonseed oil, prime in barrels, per gallon, at wholesale or for shipment, 22 cents; cottonseed hulls delivered, per 100 pounds, according to location of mill, 10 to 15 cents; linters, according to style and staple—A, 3½ to 3¾ cents; B, 3¼ to 3½ cents; C, 2¾ to 2½ cents; ashes, none.

The Pocahontas Coal.

An English publication called the Syren, alluding to the fact that Americans can give the British points in many directions, says:

"Advertising with our transatlantic cousins has in particular been reduced to a fine art, and one of its most conspicuous and up-to-date pioneers are Messrs. Castner & Curran, the shippers of the well-known Pocahontas coal, for which commodity Messrs. Hull, Blyth & Co., of 4 Fenchurch avenue, E. C., are the sole European agents. This firm have just circulated a beautifully-executed little work, containing eighteen photographs of recently-built United States warships, each of which has performed her steam trials with the Pocahontas coal, with the result that in every instance a large premium has been earned by the builders."

The steamship Karpino arrived a Fernandina, Fla., on the 24th ult. from Rio Janeiro to load a cargo of phosphate rock for a European port.

PHOSPHATES.

Phosphate Markets.

Office Manufacturers' Record, Baltimore, Md., April 1.

The phosphate market is quiet, with the bulk of transactions light. There is, however, several new charters reported of vessels to load at Tampa and other Florida and South Carolina ports for Baltimore. Manufacturers are in the market, and there has been some inquiry, both local and from out-of-town sections. The advices from South Carolina are unchanged, and while there is some business reported, matters in the phosphate belt are somewhat unsettled. The phosphate commissioners left on Monday last on a visit to the river mines, and after an inspection a meeting will be held to consider the question of reducing the royalty. Prices continue nominally steady at \$3 for crude rock at the mines; hot-air-dried \$3.25 f. o. b. Ashley river, and \$3.45 f. o. b. Charleston city. The work of development in Florida is being more vigorously pursued, and shipments from the ports for March were quite liberal, and for the month of April a further increase is expected. Tennessee miners are giving more attention to mining, the spring weather being more favorable for successful operations. Among the local charters reported are a schooner, 2400 tons, one 1400 tons and one 1600 tons, to load phosphate rock at Tampa. There has been less demand for steamers in New York during the past week, and rates show a weaker tendency. There is little interest in berth freights, with rates nominally unchanged. The phosphate charters reported during the past week were as follows: The British steamer Elpis, 1214 tons, and Wolviston, 1268 tons, from Fernandina to Stettin with phosphate rock at 16/ and 16/9, respectively, April; British steamer, 1341 tons, same at 17/1½, May 1-20; a Spanish steamer, 1830 tons, from Fernandina or Brunswick to Glasgow with part cargo of phosphate rock at 15/, April; a schooner, 896 tons, from Tampa to Cartaret or Baltimore with phosphate rock at \$1.85; schooner Senator Sullivan, 689 tons, from Charlotte Harbor to Wilmington, Del., with phosphate rock at \$1.80; a schooner, 629 tons, from Navassa to Cartaret with phosphate rock at or about \$2, and schooner Clara Goodwin, 847 tons, from Tampa to Baltimore or Cartaret with phosphate rock at \$1.85.

Fertilizer Ingredients.

The movement in ammoniates during the past week has been of moderate volume, and the market has ruled a shade easier for certain descriptions. The bulk of transactions for the week have been with Eastern buyers, there having been very little demand from the South. In the West the market is reported firm, with stocks light, several leading operators having sold entirely out of blood and tankage. Holders are very firm and prices are hardening. Sulphate of ammonia is steady, with a fair inquiry. Nitrate of soda is firm, with a moderate demand.

The following table represents the prices current at this date:

Sulphate of ammonia (gas).	\$2 30 @ 2 32½
Nitrate of soda.....	1 92¼ @ 1 95
Blood	1 67½ @ 1 70
Hoof meal.....	1 60 @ —
Azotine (beef).....	1 62¼ @ 1 65
Azotine (pork).....	1 62¼ @ 1 65
Tankage (concentrated)...	1 60 @ —
Tankage (6 and 20).....	1 62¼ @ 1 65
Tankage (7 and 30).....	15 00 @ 16 00
Fish (dry).....	19 50 @ —
Fish (acid).....	11 00 @ 12 00

Phosphate and Fertilizer Notes.

The steamship Kirstall sailed from Fernandina, Fla., on the 25th ult. with a cargo of phosphate rock for Rotterdam.

Last week at Port Tampa, Fla., three large ships were loaded with phosphate

at the same time at the rate of 1500 tons per day. They sailed with cargoes aggregating 3000 tons, and their places at their docks were immediately filled by three more vessels waiting to be loaded.

The State phosphate commission met at Beaufort, S. C., last Wednesday and started on their tour of inspection over the phosphate territory. The commission will investigate all matters relating to the Southern phosphate industry, including full consideration to the royalty question.

The fertilizer season in Georgia is about closing, and it is stated this has been the largest shipping season they have ever had in the history of the industry. The consumption of fertilizers in Georgia for the year ending in 1896 was 335,000 tons, and for the present year nearly 400,000 tons.

The Charleston News and Courier says: "The phosphate business has been unusually good this season. It is now nearly the end of the shipping season for manufactured fertilizers, and the amounts going daily into the interior are gradually falling off, but the output for the three months, January, February and March, will probably exceed by a considerable figure that of the like period for many years back, if not all previous years."

The following shipments of phosphate rock from the port of Charleston, S. C., were reported last week: Schooner Lida J. Lewis for Baltimore with 813 tons; barkentine Bruce Hawkins for Weymouth, Mass., with 900 tons, and schooner Fannie Brown for Richmond, Va., with 747 tons. The total shipments of phosphate rock from this port to domestic points since September 1, 1896, amount to 54,320 tons, against 67,677 tons for the same period last year.

The following steamships are chartered to load phosphate rock at the port of Fernandina, Fla.: Steamship Leif Ericson to load 2800 tons for J. H. Packard; steamship Ben Cliff to load 3300 tons, the Turret Age 3300 tons and the Carl Heckshap 1900 tons for H. A. Ford; the steamship Lundy for the Anglo-Continental Company to load 2500 tons; steamship Linwood to load 2500 tons for A. Newman, and steamship Byron to load 2500 tons for the Dutton Phosphate Co.

Mining Active in West Virginia.

Mr. Thomas G. McKell, of Chillicothe, Ohio, the owner of probably 30,000 acres or more of coal land in West Virginia, in a recent interview with a reporter of the Washington Post, said:

"We have no cause to feel gloomy in West Virginia, for never have I known a period when mining operations were as active as now. The demand for coal in my section is so strong that the lessees can't fill the orders fast enough. The Chesapeake & Ohio road alone has contracted for 1,000,000 tons. Now, this heavy demand for steam-making coal presages a starting up of business. What else do people buy for? They don't want it merely to stow away, and it can't be eaten. Clearly it means the resumption of industrial enterprises all along the line.

"And while I am on this subject I want to tell you that the soft coal of West Virginia is better than any produced on this earth. It makes a coke superior to that of Connellsville, which has heretofore been the standard; and another great virtue is that it is practically smokeless—so much so that it doesn't violate the smoke ordinances of the cities where such laws obtain. Its great excellencies have long since caused it to be used on the big Atlantic liners, and so we are virtually sending coal to Newcastle every day in the year."

CONSTRUCTION DEPARTMENT.

THE MANUFACTURERS' RECORD

seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in any town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and even then they must expect the return of some letters, because of the lack of knowledge on the part of postmasters of all new companies. Criticisms and complaints are invited, as they will the better enable us to guard against errors.

ALABAMA.

Birmingham—Iron Works.—Hard, Yates & Co. contemplate establishing a plant for making galvanized iron and trace chains.

Birmingham—Pottery.—E. G. Stevens will organize a pottery company, as recently reported. A body of clay land has been purchased and will be developed to supply material for the plant. Fire-brick and stone-ware goods will be produced. About \$25,000 has been expended on the factory and drying-house of the pottery.*

Birmingham—Cotton Mill.—The Avondale Mill has been organized, with B. B. Comer, president and treasurer, and David Trainer, recently of Fort Mill, S. C., secretary. The directors for the first year are B. B. Comer, Robert Jemison, W. J. Milner, M. V. Joseph and David Trainer, all of Birmingham; C. H. Hutchins, of Worcester, Mass.; D. M. Thompson, of Providence, R. I.; J. P. Wilson and H. S. Chadwick, of Charlotte, N. C. The company has placed its capital stock at \$500,000, and will erect a mill of 30,000 spindles and 1000 looms. A site of twenty-two acres of land has been donated for the plant by the Avondale Land Co., with water-power available. Birmingham capitalists have subscribed for \$250,000 worth of the stock. (This is the mill which Mr. Trainer and his associates have been endeavoring for some months to locate.) For particulars address David Trainer at Birmingham, or H. S. Chadwick at Charlotte, N. C.

Mobile—Electric Plant.—The Mobile Street Railway Co. will put in a new 100 horsepower boiler and make other improvements to its plant.

Selma—Barge Line.—The Alabama River Barge Line & Railroad Co., chartered by the last legislature, has organized, with E. C. Machen, of New York, president; W. H. Tinsdale, vice-president; B. S. Bibb, secretary-treasurer; company intends to establish barge line between Selma and Mobile and construct railroad.

Sheffield—Iron Furnace Resuming.—The Cole furnace No. 2 will resume operations at once, with daily capacity of 200 tons. The plant has been enlarged recently from 150 tons.

ARKANSAS.

Fort Smith—Shirt Factory.—A Chicago company has removed its shirt factory and overall factory to Fort Smith. Fifty hands are employed. H. M. Fishback can give information.

Lester—Mills.—E. Leonard Bratt, L. N. Pierce and others have incorporated the Lester Mill Co., with capital stock of \$30,000.

Little Rock.—The wagon factory proposed, and which the Board of Trade is endeavoring to locate, will, if built, employ 100 hands and produce 4000 farm wagons yearly. The parties interested in the enterprise have large holdings of Arkansas oak, which it is proposed to develop for material. If anything definite develops anent this factory it will be duly announced.

Little Rock—Paint Mills.—The Mineral Paint Co. has been established, with factory at 512 East Second street, and will manufacture paints, stains, varnishes, etc.; H. G. Bick, manager.

Mammoth Springs—Cotton Mill.—The new owners of the Mammoth Springs Cotton Mills, who bought the plant last week, will make enlargements. The spindles will be increased by 3500, making a total of 6500, and increasing capacity from 1000 to 3000 pounds of cloth. T. Willey, manager, can be addressed.

FLORIDA.

Bonifay—Saw Mill.—W. R. Miller contemplates building a saw mill near Bonifay.*

Peninsula—Land Company.—A. M. Moses, M. T. Harder and Carl Moller have incorporated the Inwood Land Co., with capital stock of \$5000.

St. Augustine—Electric-light Plant.—W. A. MacWilliams, Walter French and Cromwell Gibbons have applied to the city council for a franchise for electric-light plant.

St. Petersburg—Cannery.—J. E. Chase, of St. Petersburg, and A. J. Chase, of Boston, Mass., are endeavoring to locate a cannery.

Tampa—Cannery.—T. C. Tallaferro, I. S. Giddens, W. R. Fuller and others are endeavoring to organize a \$10,000 company to establish a cannery.

GEORGIA.

Cordele—Cotton Compress.—There is a movement on foot for the erection of a cotton compress to cost \$25,000. Prominent business men are interested, and will doubtless develop the enterprise to success.

Lumpkin—Cotton Ginnery.—Amos H. Kenyon will build a cotton ginnery.*

Macon—Machine Shops, etc.—The Georgia Southern & Florida Railroad Co. has let contract to Nicholas Ittner, of Atlanta, at \$29,246 for the erection of the buildings for the road's new machine and repair shops. Additional machinery will be purchased also; W. C. Shaw, vice-president, Macon.

Quitman—Lumber Mill.—Dasher & Co., of Lowndes county, have bought ten acres of land at Quitman and will build thereon a large lumber mill. Several hundred hands will be employed. An established mill will be removed to the site.

KENTUCKY.

Central City—Water Works.—The Central City Water Co. has purchased site for its proposed works.

Lawrenceburg—Lead and Zinc Mines.—Lead and zinc deposits have been found on the property of J. S. Searcy, near Lawrenceburg, and may possibly be developed.

LOUISIANA.

Crowley—Mercantile.—The H. Roos Co., Limited, capital stock \$10,000, has been incorporated for mercantile purposes by Henry Roos, Ed. Klotz and others.

Lafayette—Cotton Compress.—J. J. Davidson, T. M. Blossat, Jules J. Mouton and others contemplate erecting a cotton compress.

McDonoghville—Chemical Plant, etc.—A company is now applying for charter, and intends to manufacture glycerine, tallow candles, oleic acid and other chemical liquids. The McDonoghville Condensed Milk Factory will be remodeled to suit the new company.

New Orleans—Machine Shops, etc.—The New Orleans & Southern Railroad has now in progress the work of building its machine shops and roundhouse.

New Orleans—Improvement Company.—The Tulane Improvement Co., Limited, has

been incorporated, with capital stock of \$10,000, and John S. Rainey is president; Sam Henderson, vice-president, and Thomas Noeholson, secretary-treasurer.

New Orleans—Sewerage System, etc.—The franchises, rights and property of the New Orleans Sewerage Co. have been sold to N. W. Jordan, of Boston, acting as attorney for the American Loan & Trust Co., of Boston. The price paid was \$93,500. It is proposed to organize a new company, with capital stock of \$2,000,000, to complete the system, which latter is estimated would cost from \$1,500,000 to \$2,000,000. It is said that John S. Rainey will be president of the new company. Fenner, Henderson & Fenner are the legal representatives of the new company's promoters.

Opelousas—Cob-pipe Factory.—Ohio capitalists will establish in Opelousas a factory for making 10,000 cob pipes daily. C. J. Thompson, manager, can be addressed.

Pineville—Steel Bridge.—The Kansas City, Watkins & Gulf Railroad Co. expects to construct a bridge across the Red river between Alexandria and Pineville. Address P. H. Philbrick, chief engineer, Pineville, La.

Shreveport—Cattle Company.—The Nolan County Live Stock & Trading Co. has been incorporated, with capital stock of \$20,000; W. R. Harris, president; C. J. Foster, vice-president, and R. K. Colquitt, secretary.

MARYLAND.

Baltimore—Publishing Company.—W. E. Beveridge, A. L. Blessing and others have incorporated the Maryland Democrat Publishing Co., with capital stock of \$5000.

Frederick—Water-works Extensions.—The city will increase the water supply by tapping a mountain creek. Rownell & Minshall, of New York, will make surveys for the route.

Chestertown—Flour Mill.—Thomas H. Topping writes regarding the new 50-barrel roller flour mill, reported last week, that he has been estimating on it and will build within the next eighteen months.*

MISSISSIPPI.

Aberdeen—Oil Mill.—Robert Kaye will build, as reported heretofore, a cottonseed-oil mill. The plant will be a small one, and contract for the machinery has been awarded.

Brookhaven—Variety Wood Works.—The Brookhaven Variety Works will erect an addition and put in new machinery.

Summit—Water Works.—There is a movement on foot for the construction of water works.

MISSOURI.

Excelsior Springs—Telephone Exchange.—C. H. and J. C. Coffinger have obtained franchise for telephone system and will establish same at once.

Hannibal—Electric-power Plant, etc.—The Hannibal Railway Co. will rebuild its plant entirely, including new power-house, etc.; D. Thomas, manager.*

Joplin—Water Works.—The Joplin Water Co. will erect a large addition to its reservoir.

Joplin—Sewerage System.—There is a movement on foot to vote on issuing bonds for \$5000 to improve the city's sewage. Address the mayor.

Sedalia—Lead Mine.—It is said that lead deposits have been found on the property of J. N. Dalby.

St. Louis—Optical Company.—John W. Kasper and others have incorporated the St. Louis Optical & Manufacturing Co., with capital stock of \$6000.

St. Louis—Tobacco-manufacturing Company.—Max Fritz, Wm. C. Fritz and others have incorporated the M. Fritz & Sons Cigar & Tobacco Co., with capital stock of \$50,000.

St. Louis—Ice-machine Works.—The Brecht Ice Machine & Engineering Co. has been incorporated, with capital stock of \$20,000, by Gus V. Brecht, Nils Johnson, J. Walter Slesle and others; purpose, to manufacture ice machines, cold-storage plants, etc.

St. Louis—Coal Mining.—John Q. Adams, Frank L. Grierson, Bell E. Black and others have incorporated the St. Louis-Galveston Coal & Mining Co., with capital stock of \$50,000, for coal-mining purposes.

St. Louis—Street Paving.—Walter S. Townsend, J. H. August Meyer and William E. Fisse have incorporated the St. Louis Novac-

ulte Co., with capital stock of \$3600, for street-paving purposes.

St. Louis—Construction Company.—A. Gelsel, C. Linnekohl and others have incorporated the Gelsel Construction Co., with capital stock of \$10,000.

St. Louis—Laundry.—Chas. W. Tomfohrde, W. H. Brammeler and W. A. Flausburg have incorporated the Security Laundry Co., with capital stock of \$10,000.

St. Louis—Horse-collar Factory.—E. T. Wickham, John H. Evill and Jos. B. Ambs have incorporated the Humane Horse Collar Co., with capital stock of \$25,000, for the purpose of manufacturing horse collars, etc.

St. Louis—Chemical Works.—Eugene B. Roberts, Herbert L. Hall, James O. Wright and others have incorporated the Antibrule Chemical Co., with capital stock of \$20,000, to manufacture chemicals, etc.

St. Louis—Corrugating Works.—The American Corrugating Co. has reorganized under a new charter, with capital of \$25,000. New machinery has been put in the works and the capacity increased. R. B. Whittemore is president, and A. P. Whittemore, secretary.

St. Louis—Steel Works.—The O. K. Harry Steel Works, of Dallas, Texas, will remove its roofing and fencing works to St. Louis. New buildings are now being erected to accommodate the plant.

St. Louis—Mining-machinery Works.—A movement is on foot for the establishment of a plant for the manufacture of mining machinery. E. E. Souther, L. P. Ewald and J. A. J. Schultz are said to be interested.

NORTH CAROLINA.

Charlotte—Furniture Factory.—E. M. Humphreys, of Chicago, who recently purchased the Elliott Furniture Factory in Charlotte, will overhaul the plant and put it in operation at once. J. A. Elliott will be manager of the business.

High Point—Furniture Factory.—Robert Wheeler will build a furniture factory.

Kernersville—Flour Mill.—Harmon & Reed will build the roller-process flour mill reported last week.

Roanoke Rapids—Cotton Mill.—The Roanoke Mills Co. contemplates increasing its mill from 12,000 to 20,000 spindles.

Tryon—Bottling Works, Grape-Juice Products, etc.—The Pacolet Grape Juice Co. has been organized to manufacture grape-juice products and general bottling works. The size of factory will be 40x50 feet, two stories high, steam being used for power, and operation will commence by June 1.

Tryon—Knitting Mill.—L. N. Wilcox & Sons have established a new knitting mill for manufacturing 300 dozen pairs of hose daily. Water-power will be used, and operations will commence by May 1.

Wilmington—Electric-light Plant.—The Wilmington Gas Light Co. has improved its electric-light plant and put in additional machinery since January 1 as a cost of \$11,000.

SOUTH CAROLINA.

Columbia—Electric-light and Power Plant. Application has been made for a charter for the People's Electric Light Co., with capital stock of \$100,000 and purpose of erecting and operating a plant to supply light and power. The incorporators of the company are Aretas Blood, of Manchester, N. H.; Aretas Blood Carpenter, of New Hampshire, and George Wallace Newton, of Massachusetts.

Columbia—Bridge.—The Brookland Bridge Co. has applied for charter, the incorporators being M. H. Witt, E. W. Shull, Albert R. Taylor and others, with capital stock placed at \$40,000. The company proposes the construction of a bridge across the Congaree river between Columbia and Brookland.

Fairbanks—Tobacco Factory.—The Dutch Fork Tobacco Manufacturing Co., recently organized, has commenced operations manufacturing; enlargements may follow in the fall; N. P. Koon, president.

TENNESSEE.

Chattanooga—Cannery.—The Business League is in correspondence with a North Carolina party relative to locating a cannery in Chattanooga.

Jonesboro—Cotton Mill.—The Jonesboro Cotton Mills is putting in additional machinery.

Pulaski—Flour Mill.—M. B. Neely has bought the People's Mill and intends to improve same by additions of machinery, etc.

Pulaski—Cotton Mill.—B. F. McGrew will put in machinery for the manufacture of twine, cotton rope, sacks, etc.

South Pittsburg—Stove Foundry.—The South Pittsburg Stove & Foundry Co. has been incorporated, with capital stock of \$60,000, to put in operation the old plant at South Pittsburg; T. G. Garrett, president; A. M. Shook, vice-president, and George W. Corly, secretary-treasurer.

Tellico Plains—Lumber Mill.—The Heyser Lumber Co., of Chattanooga, will remove its large lumber plant to Tellico Plains and continue operations as the Tellico Lumber Co. Large tracts of timber lands owned by the company will be cut; Walter Heyser, manager.

TEXAS.

Abilene—Water-works Dam.—N. Werrenskold, of Dallas, has completed survey for proposed water-works dam near Abilene. Plan provides for dam 700 feet in length, thirty, twenty and twelve feet high. The reservoir would cover 100 acres of land.

Aransas Pass—Brick and Tile Works.—A company will be organized to establish works for the manufacture of bricks and tiles. A plant to cost \$20,000 and have daily capacity of 40,000 brick will be equipped. About twenty-five men will be employed. C. H. Sawyer can be addressed for further particulars.*

Beaumont—Wharf and Terminal.—W. A. Fletcher, William Wels, G. W. O'Brien and others have incorporated the Beaumont Wharf & Terminal Co., with capital stock of \$60,000, to construct terminal railways, wharves, etc.

Brandon—Mercantile.—J. R. Thompson, T. E. Tomlinson, W. R. Lang and A. L. Smith have incorporated the Brandon Hardware Co., with capital stock of \$15,000.

Burnet—Locomotive Company.—C. H. Philip, W. H. Westfall and others have incorporated the Bell Crank Locomotive Co., with capital stock of \$36,000.

Ennis—Ice Factory, Water Works, etc.—M. A. Belcher, of Ennis, and J. E. Campbell, of Kansas, have purchased the Ennis ice factory and lighting plant. Improvements will be made to the plants and additional machinery installed.

Fort Worth—Land Company.—Thomas D. Ross and others have incorporated the Fort Worth Land Co., with capital stock of \$240,000, to deal in and improve lands, etc.

Galveston—Steam Bakery, etc.—George Fox, Sr., Chris. Fox, Jr., and others have incorporated the Fox Steam Bakery & Manufacturing Co., with capital stock of \$5000, to manufacture bread, crackers, etc.

Hempstead—Water, Electric-light and Ice Plants.—The Hempstead Water Works Co. has completed arrangements for the installation of ice, electric-light and water works.

Houston—Creamery.—P. Coulson, 907 Capitol street, has established a creamery.

Llano—Lumber Mills.—J. I. Campbell, J. L. Campbell and William Matthews have incorporated the Llano Lumber Co. for the purpose of operating mills, etc. Capital stock is \$25,000.

Mt. Calm—Water Works.—The Mount Calm Water Co., reported last week as incorporated, has constructed a reservoir for water-supply purposes, but has not as yet determined to lay pipes, but probably this latter step may be taken later in the year.

Runge—Electric-light Plant, Gins, etc.—Schorre Bros. contemplate putting in an electric-light plant; also three new gins, etc.*

Runge—Water Works.—A company has been formed to construct the contemplated water works, and will soon be ready for bids. Plans and specifications are now on hand. Address Gus A. Tips.*

Seguin—Cotton Gin.—H. Troell is putting in a new gin at a cost of \$15,000. Machinery has been purchased.

VIRGINIA.

Harrisonburg—Pottery.—The Forestwood Pottery Co. has been incorporated, with capital stock of \$50,000, and will put in operation the old Virginia Pottery at Harrisonburg. Leo Forester is vice-president and manager of the new company, and states that the company will produce all kinds of pottery from native Virginia clays. Clay lands of large extent are controlled by the company.

Independent Hill—Gold Mine.—A Mr. Evans, of Virginia, and J. Register & Sons, of Baltimore, Md., are developing a gold mine near Independent Hill. Local representative is R. A. Register.

Iron Gate—Spike and Iron Works.—The

Richmond Standard Spike & Iron Co. will put its Iron Gate mills in operation, as stated last week, after an idleness of about eight months. About 200 hands will be employed.

Irrington—Fertilizer Factory.—The Carter's Creek Fish Guano Co. has been incorporated, with capital stock of \$40,000; Wm. L. Messick, president; Jos. F. Bellows, vice-president, and Levin H. Irving, secretary-treasurer.

Low Moor—Iron Furnaces.—The Low Moor Iron Co. will reline its furnace, putting in new stoves and raising "A" furnace from seventy-five feet to eighty feet.*

Lynchburg—Livery Stable.—J. L. Crist, M. E. Doyle and others have incorporated the Place Livery Co., with a capital stock of \$10,000.

Lynchburg—Aluminum Works.—The Wilson Aluminum Co. has leased an electric plant in Lynchburg and will engage in the manufacture of a chemical used in its aluminum works.

Norfolk—Lumber Plant.—The South Norfolk Lumber Co.'s plant was not destroyed by the fire during the week, merely lumber, sheds and wharves being damaged. Contract has been awarded for rebuilding these.

Norfolk—Cigar-machinery Works.—The Perfect Cigar Shaper Co. has been incorporated, with capital stock of \$50,000, to manufacture cigar shapers, etc.; president, E. G. Kemble, of Philadelphia, Pa.; secretary-treasurer, Austin M. Clark, of Camden, N. J.; directors, E. H. and E. C. Stokes, of Millville, N. J., and Philip H. Kratz, of Philadelphia.

Norfolk—Construction Company.—Chartered: The Virginia Construction & Equipment Co., with capital stock of \$10,000, to construct canals, bridges, etc. Charles Adamson, of Cedar town, Ga., is president; Griffin C. Callahan, of Philadelphia, Pa., vice-president, and W. E. Stokes, also of Philadelphia, secretary-treasurer.

Richmond—Water Works.—Water works will be constructed at Barton Heights, Va., after plans by J. T. Redd & Sons, Richmond. Address Crawford Redd, care of firm mentioned.*

Richmond—Manufactory.—It has been stated that within thirty days a manufacturing plant of \$400,000 capital and employing 400 men will be established. E. A. Catlin can probably give information if report is correct or not.

Woodstock—Telephone Lines.—The Shenandoah County Telephone Co. has been organized, with J. C. Baker, president; M. B. Wunder, vice-president, and J. H. Grabill, secretary-treasurer. The company has bought and will improve telephone lines.

WEST VIRGINIA.

Clarksburg—Publishing Company.—The News-Tribune Co., capital stock \$25,000, has been incorporated for publishing purposes by O. Q. Owens, Howard S. Smith and others.

Elkins—Coke Ovens.—The Davis Coal & Coke Co. will erect a number of additional coke ovens along the line of the West Virginia Central Railway.

Huntington—Brush Factory.—The Chamber of Commerce has completed arrangements for the location of a brush factory.

Huntington—Brush Factory.—The brush factory reported last week will be established by McDonel & Co., late of North Judson, Ind. A building has been secured and the Indiana plant has been removed to Huntington.

Huntington—Foundry and Woodworking Plant.—Phillips & Debord have bought the Huntington heating and ventilating plant, which has been idle for three years, and will operate same as a woodworking plant and iron foundry for general work.

Mannington—Publishing.—T. M. Wise, Wm. H. Furbie and others have incorporated the Mannington Publishing Co. for publishing purposes; capital stock \$25,000.

Unger's Store—Flour Mills, Woodworking Plant, etc.—A. R. and Newton Unger will erect a flour mill and put in their saw mill a handle and spoke factory.

BURNED.

Georgetown, Ky.—The Lair Flour Mills; loss \$6500.

Louisville, Ky.—The National Foundry & Machine Co. had a loss of \$5000, caused by fire in the pattern-room.

New Castle, Va.—Cannery of R. T. Slusser; loss \$2000.

North Milton, Va.—S. Chewning's flour mills; loss \$4000.

Stuart, Va.—Tobacco factory of Jos. King.

BUILDING NOTES.

Atlanta, Ga.—Jail.—Our report last week that Lewman, of Louisville, had contract for building the Atlanta jail was incorrect. Instead, the contract has been awarded to L. P. Hazen & Co., of Louisville, Ky., and they are now engaged in the work.

Augusta, Ga.—Hotel.—The North Augusta Land Co. is arranging for the erection of a hotel. T. Jackson, manager, can be addressed.

Baltimore, Md.—Baldwin & Pennington have completed plans for St. Patrick's congregation's new church building. The structure is to cost over \$50,000. Address Rev. Fr. J. F. Donohue, pastor.

Baltimore, Md.—Church.—Zion African M. E. Church will erect a new edifice at a cost of \$10,000. Thomas C. Kennedy will prepare plans; Rev. M. M. Bell, pastor.

Columbia, S. C.—Hotel.—Lorick & Lowrance intend to remodel the Columbia Hotel and put in modern equipment, such as elevators, heating plants, etc.

Cordele, Ga.—Brick Block.—O'Neal & Baker have let contract to W. H. Carr, of Albany, for the erection of a brick business block.

Covington, Ky.—Store Building.—O'Meara Bros. will erect a store and apartment building to cost \$4000.

Cynthiana, Ky.—Church.—The Christian Church will erect a new edifice at a cost of \$20,000. A \$1500 organ will be installed. Address the pastor of Christian Church.

Dallas, Texas—Depot.—L. S. Thorne, manager of the Texas & Pacific Railroad, informs the Manufacturers' Record that it is not true that work is about to commence on a depot for his road and the Houston & Texas Central, as has been reported by the press. Undoubtedly some time in the future the present depot will be replaced by an improved structure, but no definite arrangements have yet been made.

Fort Meyers, Fla.—Hotel.—M. J. Miller, of Tampa, is reported as to prepare plans for a hotel to be built in Fort Meyers.

Gulfport, Miss.—Wharves.—The Ship Island Railroad will build wharves. Address Col. Jones S. Hamilton.

Lexington, Ky.—Hotel.—John T. Williams has contract for the erection of an addition to the Phoenix Hotel.

Louisville, Ky.—Business Houses.—John Doerhofer's four five-story business buildings, reported last week, will cost \$50,000. Structures will be of stone, iron and pressed brick, with elevators, skylights, shipping facilities, etc.

Louisville, Ky.—Dwellings.—E. J. O'Brien will build a 10-room dwelling; William Fly will build a 2½-story dwelling; W. W. Dennis will build a 2½-story pressed-brick 30x50-foot dwelling, Harris Building Co. having contract; Clarke & Loomis will design a residence for J. W. Ainslie.

Mobile, Ala.—Association Building.—Contract has been awarded to the Knoxville (Tenn.) Building & Construction Co. at \$34,800 for the erection of the Y. M. C. A. building in Mobile.

Mobile, Ala.—Store Building.—Pollock & Bernheimer have closed a contract for the erection of a four-story building 107x100 feet.

Morgantown, W. Va.—Schools.—The school district has voted for an expenditure of \$50,000 for the erection of schoolhouses. Address the mayor of Morgantown.

Nashville, Tenn.—Hotel.—An addition three stories high, 66x120 feet, is being built to the Tulane Hotel.

New Berne, N. C.—Office Building, etc.—H. W. Simpson will erect an office building. S. B. Parker will erect a store building.

New Orleans, La.—Dwellings.—Permits issued to M. W. Mason for \$1200 dwelling; to Mrs. A. Lowe for \$3000 dwelling; to Sixth Baptist Church for \$2500 dwelling, and to F. Walker for \$3000 dwelling.

Norfolk, Va.—Warehouse, etc.—The Berkeley Water Co. will construct wharves and erect warehouses; contract for a wharf awarded to Charles Bliven, of Berkeley.

Norfolk, Va.—Depot.—The Norfolk, Virginia Beach & Southern Railroad is about to close bids on its depot, which is to be two stories high, 30x90 feet, with 300-foot train shed; Alfred Skitt, president, 3 Beaver street, New York city.

Raleigh, N. C.—Clubhouse.—The Capitol Club will shortly award contract for the erection of its new \$20,000 clubhouse.

Richmond, Va.—Depots, etc.—The favorable action by the Manchester city council on the viaduct scheme assures the extensive improvements contemplated by the Chesapeake & Ohio Railway Co. The im-

provements will mean the expenditure of about \$2,000,000 in the erection of depots, office buildings, etc. For particulars address Decatur Axtell, vice-president.

Rome, Ga.—Business Buildings.—J. A. Glover will erect two-story brick building, 60-foot frontage. R. G. Clark will erect a store building.

Sedalia, Mo.—Dwellings.—T. W. Bast is preparing plans for a three-story apartment house. V. B. Van Dyke has completed plans for a dwelling for J. H. Thomas.

Sparks, Ga.—Depot.—The Georgia Southern & Florida Railway Co. will build a depot; W. C. Shaw, vice-president, Macon, Ga.

St. Louis—Coliseum.—Contract has been let at \$118,000 to James Crawford & Co. and the Koker Iron Works for the erection of a coliseum building.

Washington, D. C.—Dwellings.—Joseph C. Willard will erect a six-story office building after plans by W. B. Gray; structure will cost \$60,000. B. Stanley Simmons has prepared plans for five residences to cost \$26,000. Mrs. Hebert Wadsworth, of Avon, N. Y., has prepared plans for an \$80,000 dwelling which she intends building in Washington; steam heat, electric lights, etc., to be installed. Cabin John Bridge Hotel is being remodeled by Contractor J. W. Thomas, and an electric-light plant will be installed. Wm. E. Schneider will make improvements to dwelling at cost of \$35,000. Henry Simpson has prepared plans for a block of nineteen two-story dwellings to cost \$60,000. B. F. Meyers is preparing plans for a \$20,000 residence to be built by Meyers & Anderson. J. G. Meyers has plans for four dwellings to be built at cost of \$14,000. T. F. Schneider has made plans for a seven-story structure to cost \$60,000, and to have steam heat, electric fixtures, elevators, etc.

Wilmington, N. C.—Hospital.—Proposals will be opened April 20 for the erection of an addition to United States Marine Hospital at Wilmington. Address Wm. Martin Alken, supervising architect, Washington, D. C.

Wilmington, N. C.—Hotel.—H. E. Bonitz has completed plans for the proposed hotel to be built at the Beach. The plans are for a two-story building 72x317 feet in size, with sixty-five rooms. George Campbell, Central Hotel, Charlotte, N. C., can be addressed.

RAILROAD CONSTRUCTION.

Railways.

Aberdeen, N. C.—The company which intends building the Moore County & Western road includes M. C. Wadsworth, Concord, N. C., president; C. J. Brown, of Roseland, N. C., treasurer; also J. H. Waite, of Boston, Mass. The line will be built from the terminus of the Moore County Railroad at Craigtown to Concord. The extension will be about fifty miles long. Contractors may address C. J. Brown.

Bear Spring, Tenn.—The company promoting the road from Bear Spring to Stewart Station, on the Louisville & Nashville road, is called the Cumberland Valley Railroad Co. The road, if built, will be about twenty miles long. White, Dixon & Co., at Bear Springs, may give information.

Blacksburg, Va.—The scheme of building a line from Blacksburg to Christiansburg, on the Norfolk & Western, has been revived and surveys completed. The estimated cost of the road is \$100,000. It would be about twelve miles long. J. M. McBryde and Alexander Black, of Blacksburg, and A. L. Boulware, of Richmond, are reported as interested.

Cordova, Ala.—It is announced that surveys are being made for a railroad to the coalfields near Cordova. B. M. Long may be addressed.

Georgetown, S. C.—The question of building a railroad from Georgetown to Pawley's Island, a summer resort, is being agitated. The distance is about ten miles. W. D. Morgan is among those interested.

Greenville, S. C.—It is announced that the Southern will build a number of sidings at Greenville for yard room. C. H. Hudson, 1300 Pennsylvania avenue, Washington, is chief engineer.

Houston, Texas.—The Houston & Texas Western Railroad Co. has been formed, with principal office at Houston, capital stock \$300,000, to construct, equip and operate a railroad from Houston in a westerly direction through the counties of Harris, Fort Bend, Waller and Austin; via the town of Pattison, to Sealy, in Austin county, a distance of fifty-three miles, and commencing at Pattison, in Waller county, in a north-westerly direction through the counties of Waller, Washington and Burleson to a point

on the Brazos river near Stone City, Burleson county, a distance of about seventy miles, and to purchase right of way, property, etc., owned by the Texas Western Railroad. Incorporators are Elijah Smith, of Empire City, Ore.; Prosper W. Smith, of Boston, Mass.; J. L. Mitchell, of Houston, and others.

Kansas City, Mo.—The latest report relative to the Kansas City, Pittsburg & Gulf is that the entire line between Kansas City and Port Arthur will be opened for traffic by May 1. Less than twenty miles of grading remain to be completed, and about 105 miles of track remain to be laid, according to General Manager Hammond's statement. Tracklaying is progressing at the rate of nearly two miles daily.

Liveoak, Texas.—It is stated that \$40,000 has been raised in subscriptions for a line from Liveoak to a railroad connection at Beeville or San Antonio.

Mansfield, Mo.—It is announced that the St. Louis, Mansfield & Ava Southern Company has contracted with the Ozark Construction Co., of Springfield, Mo., to build ten miles of its proposed road.

Marietta, Ga.—The Atlanta, Knoxville & Northern (Marietta & North Georgia) has begun to relay several sections with heavier rails. Joseph McWilliams, at Marietta, is general manager.

Marshall, Texas.—A meeting of the Paris, Marshall & Sabine Pass, now called the Texas Southern Company, will be held at Marshall on May 18 to consider an extension to Carthage and Beaumont and an issue of bonds to the amount of \$18,000 per mile for this purpose. The line is in operation from Marshall to Harlton, Texas, eighteen miles. J. W. Harle, at Marshall, Texas, is general manager.

Mobile, Ala.—It is announced that the Mobile, Jackson & Kansas City line has been completed to a point twelve miles from Mobile. Grading is in progress twenty-five miles from the city. H. H. Lane, at Mobile, is secretary of the company.

Montgomery, Ala.—It is announced that W. F. Wright will receive bids at Birmingham, Ala., on April 5 for furnishing ties and grading 100 miles of the Montgomery & Columbus division of the Mobile & Ohio. J. W. Woolfolk, at Montgomery, is general contractor.

New Orleans, La.—The New Orleans & Southern is relaying its track with 60-pound rails for twenty-nine miles. H. Campbell, at New Orleans, is general manager.

Pensacola, Fla.—It is stated that arrangements are being made to secure right of way at once for the proposed line from Pensacola to the Alabama coalfields, being an extension of the Pensacola, Alabama & Tennessee road. Henry McLaughlin, of Pensacola, who is interested in the enterprise, writes the Manufacturers' Record that capitalists are now investigating it. A company has been formed, with \$100,000 capital.

Richmond, Va.—It is announced that the Chesapeake & Ohio Company has made arrangements with the city authorities to build its proposed station and terminals in the city and suburbs. These will include a depot and several miles of steel viaduct and track. The estimated cost is \$2,000,000. Decatur Axtell, second vice-president, at Richmond, may be addressed.

San Antonio, Texas.—W. E. Tietze has secured the contract to extend the San Antonio & Gulf Shore road about two miles and to build three bridges. Oscar Bergstrom, at San Antonio, is manager of the road.

Sanford, N. C.—It is reported that a project is being agitated to build a railroad from Sanford to a connection with the Atlantic & North Carolina road at Goldsboro, N. C. W. J. Hilds (address at present unknown) is mentioned as one of the promoters.

Selma, Ala.—The Alabama River Barge Line & Railroad Co. has been formed to build a line from Selma to Blocton, about fifty-three miles, to be operated in connection with a line of steamers between Selma and Mobile to carry coal from the Alabama mines to Mobile. E. C. Machen, 69 Wall street, New York, is president; W. H. Tisdale, vice-president, and B. S. Bibb, secretary and treasurer.

St. Louis, Mo.—The Terminal Railroad Association is considering the idea of substituting electric for steam power on its railway lines and using motors for hauling both passenger and freight trains. The company operates about fifty miles of line and controls a tunnel one mile long and a bridge over the Mississippi river. Julius S. Walsh is president of the company, and E. P. Bryan, general manager.

Tallahassee, Fla.—It is reported that the

Florida Western Company, which is building the line between Carrabelle and Apalachicola, Fla., has secured the Tallahassee Southeastern, which is partly built between Tallahassee and Gainesville, and will complete it in connection with the Florida Western. J. M. Mayo, of Ocala, Fla., is reported as the principal owner of the Tallahassee Southeastern, of which six miles are completed.

Tellico Plains, Tenn.—It is reported that the Tellico Lumber Co. is interested in a scheme to build an electric line to timber land near Tellico Plains and in Swaine county, North Carolina.

Washington, D. C.—The Herndon & Aldie Railroad Co. has asked authority from Congress to build a bridge across the Potomac near the Great Falls.

Wilmington, N. C.—It is reported that New York parties have become interested in the partly built line between Wilmington and Southport, N. C., and will complete it. J. Pierpont Morgan is spoken of as one of the syndicate. J. E. Challenger, of the Philadelphia (Pa.) Car Service Association, was one of the original promoters.

Street Railways.

Baltimore, Md.—The Central Passenger Railway Co., George Blakiston, president, is considering a further extension of its electric line in the northeastern part of the city.

Baltimore, Md.—The City Passenger Railway Co., Walter S. Franklin, president, may extend its electric line in the southern part of the city.

Berkley, Va.—Prest. T. H. Synon, of the Berkley Street Railway Co., writes the Manufacturers' Record that the Altoona (Pa.) Electrical Engineering Co. has secured the contract for the work and is building the line and power-house. The road is expected to be in operation by May 15.

Charleston, S. C.—Work has been resumed on the Charleston electric road, and the company expects to have the line completed by June 1 on line of the principal streets. Work has begun on the power-house. J. S. Lawrence is one of the promoters of the enterprise.

Columbia, S. C.—It is reported that arrangements are being made to construct an electric road to Horseshoe Lake from Brookland, in the suburbs. The Columbia Electric Railway Co., J. Q. Marshall, manager, is reported as interested. The new road will be a trolley line four miles long.

Gulfport, Miss.—Joseph B. Leger may be addressed relative to a proposed street-car line about two miles long. It is to be operated by animal power.

Hannibal, Mo.—D. Thomson, manager of the Hannibal Railway Co., writes the Manufacturers' Record that six miles of line will be rebuilt. A power-house will also be constructed. The company proposes to purchase a quantity of rolling stock and will need rails and machinery.*

Jackson, Miss.—The city authorities are considering the idea of having an electric railway in connection with an electric-light plant. Address the mayor.

Louisville, Ky.—It is stated that the Louisville City Railway Co. will change its Oak and Brook street divisions to electric systems. The company now operates about forty miles of street railway by animal power. J. B. Speed is president of the company.*

Washington, D. C.—The Capital Traction Co., A. E. Randle, president, is considering the adoption of the Brown system of electric traction, which utilizes the underground conduit.

Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Boiler.—H. A. Rankin, Fayetteville, N. C., wants a second-hand tubular boiler, about sixty horse-power.

Boiler and Engine.—See "Brick-works Machinery."

Boiler and Engine.—M. E. McMann, Graham, Va., wants to buy a new steam engine and boiler combined, mounted.

Boiler and Engine.—Schorre Bros., Runge, Texas, want prices on 100 horse-power boiler and eighty horse-power engine.

Boilers.—The Low Moor Iron Co., Low Moor, Va., is in the market for ten flue boilers, fifty-four inches in diameter, thirty feet long; each boiler to contain two 18-inch tubes thirty feet long; cast-iron fronts, with necessary manholes, steam drums, etc.; these boilers to be placed in position in five batteries, with five separate draught stacks of required capacity.

Bolts.—J. H. Mason & Co., Charlotte, N. C., want to buy bolts for spring beds; bolts to be five-sixteenths of an inch in diameter and five inches long.

Bricks.—See "Brick-works Machinery."

Brick-works Machinery.—Brick-works equipment will be wanted, including 100 horse-power boiler and engine; one each wet and dry pan, new pattern; stiff mud machine; automatic cutting table, with extension belt; Brice 10-inch pug steel shell double gear; one two-track drier; No. 8 steel pressure blower; several elevators and revolving screens; three transfer cars, thirty trucks, forty inches by seven feet; furnace castings, doors, 16-pound T rails, 200,000 common brick, 50,000 fire-brick and 200 barrels of lime. Address C. H. Sawyer, Aransas Pass, Texas.

Bridge.—Bids for bridge or bridges across the Chucky river are now being received by Washington county, Tennessee. Address for particulars Jacob Leab, clerk county court, Embreeville, Tenn.

Chair Machinery.—R. J. Wheeler, High Point, N. C., is in the market for chair machinery.

Chair Machinery.—See "Woodworking Machinery."

Cotton-mill Machinery.—The High Falls Manufacturing Co., Prosperity, N. C., wants prices on Denn warpers and spoolers.

Cotton Gins.—Amos H. Kenyon, Lumpkin, Ga., wants to buy equipment for cotton ginning.

Cotton Gins.—Schorre Bros., Runge, Texas, want prices on three new Gins, No. 55 Sturtevant blower, and distributing system for four 70-saw Gins.

Electric-light Plant.—Schorre Bros., Runge, Texas, want to obtain estimates on electric-light plant for lighting flour mills.

Electric-power Machinery.—The Hannibal Railway Co., Hannibal, Mo., will buy two 100-kilowatt generators, with engine and boilers to suit, etc. See "Railway Equipment" also.

Evaporators.—J. B. Northrup, Norfolk, Va., wants catalogues and prices of fuel evaporators.

Excelsior.—T. C. Gill, 308 Walnut street, Philadelphia, Pa., wants addresses of manufacturers of excelsior.

Flour Mill.—Thomas H. Topping, Chester-town, Md., has been estimating on a 50-barrel roller flour mill.

Foundry and Machine-works Equipment.—C. F. Pekar, Columbus, Ga., wants bids on complete equipment for machine shops and foundry. About \$8000 will be expended on the plant.

Gasoline Engine.—E. G. Gillitt, Runge, Texas, wants to buy a gasoline engine.

Gasoline Engine.—M. E. McMann, Graham, Va., wants to buy a ten to fifteen horse-power gasoline engine.

Gasoline Engine or Oil Engine.—Z. V. Rogers, Riverdale, Md., wants to buy a three or four horse-power gasoline or gas engine, new or second-hand.

Gasoline or Naphtha Engine.—W. C. Lynch, care of Galveston City Railroad Co., Galveston, Texas, wants to buy a good second-hand gasoline engine or naphtha engine for running small craft.

Ice Machines.—C. H. Bostwick & Son, Whistler, Ala., want to correspond with makers of ice machines for manufacturing on a small scale.

Iron-furnace Equipment.—The Low Moor Iron Co., Low Moor, Va., will place contracts for fire-brick for relining furnace, and for several three-pass hot-blast stoves.

Ironworking Machinery.—Hard, Yates & Co., Birmingham, Ala., want to correspond with makers of machinery for making trace chains and galvanized iron.

Machine Tools.—W. H. Tudor, care of American Plate Glass Co., Alexandria, Ind., wants to buy a second-hand punch, 24-inch throat, capacity eleven-sixteenths-inch hole in one-half-inch metal.

Machine Tools.—See "Foundry, etc." above.

Piping.—W. F. Wilson, Mansion House, Gay street, Baltimore, Md., wants to buy 450 feet of one-inch pipe at low price.

Pottery Machinery.—E. G. Stevens, manager, Birmingham, Ala., will be in the market for turning wheels, molds and other machinery for stoneware goods.

Pumping Works.—Bids will be opened April 5 for construction of complete pumps, etc., for sewage at Soldiers' Home at Hampton, Va. Address William Thompson, treasurer National Soldiers' Home, Virginia.

Pumps and Piping.—The High Falls Manufacturing Co., Prosperity, N. C., wants prices on pumps and iron piping.

Rails.—See "Brick-works Machinery."

Railway Equipment.—F. Herr, Jackson, Ga., wants a second-hand 16 or 18-ton standard-gage dummy. Give full specifications, etc.

Railway Equipment.—Joseph B. Leger, Gulfport, Miss., wants to contract for two and one-half miles of track and several cars for electric railway.

Railway Equipment.—F. M. Starbuck, Hinton, W. Va., wants to buy a good second-hand locomotive, 36-inch gage, and above twenty-five tons.

Railway Equipment.—The Hannibal Railway Co., Hannibal, Mo., will buy new electric machinery, including six miles of new rails, six closed and six open cars, two 100-kilowatt generators, engine and boiler, etc. Address D. Thomas, general manager.

Saw Mill.—W. R. Miller, Bonifay, Fla., will open bids May 15 for equipment for saw mill (small). Second-hand outfit in good condition could be used.

Water Works.—Bids will be received for the construction of water works at Barton Heights, Va.; plans and specifications now on file with J. T. Redd & Sons, Richmond, Va. For particulars address Crawford Redd, care of firm mentioned.

Water Works.—Company at Runge, Texas, will soon be ready to receive bids on water works; plans and specifications now with Gus A. Tips.

Wire-nail Machinery.—Clendenin Bros., 111 South Gay street, Baltimore, Md., want prices on machinery for barbing wire preparatory to its being made into wire nails.

Woodworking Machinery.—M. E. McMann, Graham, Va., wants a machine for turning insulator pins, etc., from eight to twelve inches.

Woodworking Machinery.—The Richmond Woodworking Co., Richmond, Va. (Chamber of Commerce Building), wants panel planer, mortiser and tenoners, new or second-hand.

Woodworking Machinery.—R. J. Wheeler, High Point, N. C., is in the market for chair machinery.

Woodworking Machinery.—The Mayers Chair Co., Union City, Tenn., is in the market for improved rod machines to turn chair posts.

TRADE NOTES.

For Southern Trade.—Mr. Charles S. Burgen, mechanical engineer, High Point, N. C., will be of service to persons contemplating opening a Southern office for the sale of their machinery.

Iron-ore Property.—A gentleman whose address is Box 100, Chattanooga, Tenn., who owns valuable iron-ore property in Alabama and Georgia, desires a partner with capital for development.

For a Georgia Mill.—The Manistee Iron Works Co., of Manistee, Mich., has sold a 12x12 twin-engine steam feed and an 8x5x10 Manistee steam pump to H. P. Smart, of Savannah, Ga., for his new mill at Sparks, Georgia.

Long-established Business.—The Epping-Carpenter Co., of Pittsburg, Pa., succeeds to the steam pump and brass trade established in 1806. It makes a full line of steam pumps, claiming special excellence for the Epping special boiler-feed pump.

A New Typewriter.—During the first five months of their manufacture by the American Typewriter Co., of New York, 5000 of the new model No. 2 American typewriters were sold in this country and abroad. The advantages claimed for the machine, beside its low price, are that it prints directly from the type and gives a clear-cut impression; that a permanent and perfect alignment is secured; that it is easily operated, the pointer working from the inside of the dial circle, thus giving the fingers perfect control of it; the arrangement of capitals and small letters is exactly alike; the writing is

In sight, and there is no balking. It is estimated that 150 copies can be made from one original in twenty to thirty minutes. The machine writes seventy-three letters, figures and punctuation marks.

Machine-tools Equipment.—The Davis-Egan Machine Tool Co., of Cincinnati, Ohio, has just secured an order from the Indianapolis Engine Co., of Indianapolis, Ind., for an equipment of machine tools. It is just completing its buildings, and will manufacture a line of stationary engines.

Cotton-mill Machinery.—The Piedmont Manufacturing Co., of Piedmont, S. C., having decided to change from yarns, has for sale 10,000 spindles, with the necessary cards, railway heads, drawing, slubbers, speeders and twistors, and three 54-inch turbines. This offer is worthy of investigation by Southern cotton-mill people.

A Small Steam Launch.—The H. Mueller Manufacturing Co., of Decatur, Ill., has for sale a small steam launch, eighteen feet long, two feet depth and eight feet beam, with one horse-power Shipman engine and boiler, and oil tank holding sufficient oil for a day's travel. The speed is from five to eight miles an hour.

For Railroad Shops.—Among recent orders received by the Ingersoll-Sergeant Drill Co., of New York, is one for the Atchison, Topeka & Santa Fe system for a large duplex air compressor to be used at the shops of the Gulf, Colorado & Santa Fe Railroad. The air cylinders of this compressor are cross compound and of the well-known piston inlet type.

Harbor Patrol Launches.—Two more harbor patrol launches for the police department of New York city will be built by the Gas Engine & Power Co. and Charles L. Seabury & Co., Consolidated, Morris Heights, New York city. These launches are similar to the naphtha launches used during the past year in the department's service, which were furnished by above company. The boats are thirty feet long, seven feet beam, two feet six inches draft, very strongly constructed, of oak keel and frames, steam-bent straight-grained timbers, cedar-planked, copper-fastened and riveted throughout. Decks are of white pine. The interior of hull is finished in ash and oak, natural color of the wood, varnished. There is standing wood roof over entire cockpit, with glass windows forward. The machinery is a six horse-power naphtha motor. These launches are very seaworthy for their size, and are very serviceable and satisfactory launches for the police department's harbor use.

TRADE LITERATURE.

To Cut Keysents.—John T. Burr & Son, of Brooklyn, N. Y., have issued a pamphlet illustrating the Burr improved portable key-seat milling machine.

Tools for Butchers.—The Lancaster (N. Y.) Machine and Knife Works has issued a catalogue of its planing and meat machine knives, butchers' tools, etc.

Gas and Gasoline Engines.—The Springfield Gas Engine Co., of Springfield, Ohio, has issued a pamphlet illustrative of the Springfield gas and gasoline engines.

Brake Slack Adjuster.—A pamphlet illustrative of the character and advantages of the McKee automatic brake slack adjuster has been issued by the Q & C Co., of Chicago, Ill.

Machine Tools.—Dietz, Schumacher & Boye, of Cincinnati, Ohio, have published a fully illustrated catalogue of their various styles of lathes, screw machines, milling machines, drills and shapers.

Gutta-percha Roofing.—The eleventh edition of the catalogue of the Empire Paint & Roofing Co., of Philadelphia, Pa., is devoted largely to a setting forth of the uses to which its gutta-percha wire-edge roofing may be applied.

Stone Road Machines.—One of the most attractive publications of its kind is the catalogue of Austin stone road machinery made by F. C. Austin Manufacturing Co., Chicago, and sold by Austin & Western Co., Limited, of the same city. The volume is elaborately illustrated, showing the machinery not only as it stands in the warehouse, but in actual operation. One picture, for instance, shows a complete stone-crushing plant in the quarry, while another reveals the whole labor and expense saving process of road-making by the Austin machines.

Crusher plants, screens, portable and stationary engines, rollers, road machines and their many adjustments, dump wagons, sprinklers, street sweepers, ditchers, well machinery, drills, sewer builders and current motors are all shown as an important adjunct of the well-written descriptions of the many and far-reaching uses. The catalogue will interest others beside the trade, as it is in a certain sense a revelation of the possibilities in one line of machinery alone.

For Inventors.—Glascock & Co., of Washington, D. C., have issued a handy reference book for inventors, containing not only explicit instructions about the details of patent laws, but also much valuable advice for those who have original ideas. The pamphlet discusses profitable patents, the changed positions of those once called cranks, the basis upon which patents are obtained, the necessity for accurate knowledge regarding the practices of the patent office, and the costs of patents, trade-marks and copyrights. The publication is at once an inspiration to those having ideas and a means to making those ideas of practical value.

Iron Markets.

Cincinnati, Ohio, March 27.

The conditions prevailing a week ago have not changed very materially.

The dissolution of the Lake Superior ore pool will result in the reorganizing of all the old Ranges into an organization for reasonable self-protection and the maintenance of equable figures. The belief had obtained that prices on lake ores were to be greatly demoralized and deeply cut. The worst has probably been discounted, as the current figures on Lake Superior coke irons have in all probability reached bottom.

The Lake Superior Charcoal Iron Co., a combination of all the live furnaces making that class of iron, announces its preparation for business.

Notwithstanding consumption has not enlarged appreciably the past week, the demand for all classes of coke iron, excepting Bessemer, has expanded.

We quote for cash f. o. b. Cincinnati:

Southern coke No. 1 foundry..	\$10 00@10 25
Southern coke No. 2 foundry..	9 25@9 50
Southern coke No. 3 foundry..	9 00@9 25
Southern coke, gray forge....	8 75@9 00
Southern coke, mottled.....	8 75@9 00
Southern coke No. 1 soft.....	9 50@9 75
Southern coke No. 2 soft.....	9 25@9 50
Belfont coke No. 1, Lake Sup..	11 50@12 00
Belfont coke No. 2, Lake Sup..	11 00@11 50
Hanging Rock charcoal No. 1..	15 00@16 00
Tennessee charcoal No. 1.....	13 00@14 00
Jackson Co. silvery No. 1.....	12 50@13 00
Standard Alabama car-wheel..	14 75@15 50
Tennessee car-wheel.....	13 50@14 50
Lake Sup. car-wheel & mail'e.	14 75@15 25

Chicago, Ill., March 27.

The telegraphic communication from Cleveland that appeared in our daily press, to the effect that the ore pool had collapsed, was somewhat misleading. The facts seem to be that all mining interests, outside of the Mesaba, are pooled for another season, and that prices have gone back to those ruling in 1895—a reduction of say 33½ per cent. from those in force last year. We may now look for more settled conditions as to costs and selling prices, which also means more activity in buying.

The collapse of the Traffic Associations, owing to the recent court decision, attracts widespread attention, but will have no bearing on rates so far as can be seen at present.

The inquiry during the past week seems to have fallen off materially from what it was for the two weeks preceding. Sales have been small, and not many.

Owing to the scarcity of Southern No. 1 soft, the leading producers have advanced the price of that grade 25 cents per ton.

We quote f. o. b. Chicago as follows:

Local coke foundry No. 1.....	@11 25
Local coke foundry No. 2.....	@10 75
Lake Sup. charcoal Nos. 1 to 6..	13 50@14 50
Ohio Scotch No. 1.....	12 00@12 25
Jackson Co., Ohio, silvery.....	14 00@15 50
Alabama silvery No. 1.....	@11 40
Southern coke No. 1 foundry..	11 00@11 25
Southern coke No. 2.....	10 25@10 40
Southern coke No. 3.....	10 00@10 15
Southern coke No. 1 S.....	10 65@10 90
Southern coke No. 2 S.....	@10 25
Mannie	11 75@12 50

Philadelphia, Pa., March 27.

Last week a little affair in Carson City seemed to divert the attention of the average man. This week a number of important matters are held open pending the adjustment of freight rates, the Joint Traffic Association having failed to come to any agreement. The rolling mills in the Susquehanna district are not running as full as they had anticipated. The general foundry trade seems to be fairly good, and frequent orders come in requiring quick shipment, showing that stocks in consumers' hands are light. Several contracts have been placed by cast-iron pipe manufacturers, calling for lots of 3000 to 5000 tons No. 3 and No. 4 iron.

We quote for cash f. o. b. Philadelphia docks:

No. 1 X standard Alabama....	@11 25
No. 2 X standard Alabama....	@10 50
No. 1 X lake ore iron.....	@12 90
No. 2 X lake ore iron.....	@12 40
Lake Superior charcoal.....	@15 75
Standard Georgia charcoal....	@16 50

New York, N. Y., March 27.

Market influences continue very much mixed. The collapse of the Lake ore pool is for the moment disturbing, but, like the dissolution of the steel-rail pool, will doubtless work good in the end. It should not be forgotten, though, that the ore agreement applied only to Bessemer ores. There has been no agreement on non-Bessemer, which have all the time ruled so low that leading mines have barely got back cost of mining. There is no prospect, therefore, that the cost of foundry and forge irons can be materially cheapened, except as lake freights may be lower.

The approach of spring and commencement of outdoor work has brought out a good many contracts which have been hung up, and structural iron works, pipe shops, etc., are feeling the stimulus very decidedly. At the low prices now ruling in all iron and steel products, if consumption is not greatly increased as the season advances it will be a strange reversal of past experience.

We quote for cash f. o. b. docks or cars New York:

No. 1 X standard Alabama....	@11 25
No. 2 X standard Alabama....	@10 50
No. 1 X lake ore coke iron.....	@12 90
No. 2 X lake ore coke iron.....	@12 40
Lake Superior charcoal.....	@15 75
Standard Georgia charcoal....	@16 50

We quote for cash f. o. b. St. Louis:

Southern coke No. 1.....	@10 75
Southern coke No. 2.....	@10 25
Southern coke No. 3.....	@10 00
Southern gray forge.....	@9 50
Tennessee charcoal No. 1.....	@13 25
Lake Superior coke No. 1.....	@14 00
Lake Superior car-wheel.....	@15 25
Southern car-wheel.....	@15 25
Genuine Connellsville coke....	@4 55
West Virginia Coke.....	@4 20

Pittsburg, Pa., March 27.

The only thing that has aided in bringing about a fair business in the past week has been that lower prices rule. These have been brought about for the most part by the recent disagreement among the Lake Superior ore men, as well as increasing stocks at furnaces.

ROGERS, BROWN & CO.

The lumber plant of Clark & McCulloh on Bear creek, near Friendsville, Md., was destroyed by fire on the 22d ult., entailing a loss of \$15,000.

Free Stop-over at Washington.

On all through tickets between the East, West, North and South, reading via Baltimore & Ohio Railroad, a stop-over at Washington can be secured, without extra charge for railroad fare, by depositing the ticket, upon arrival at Washington, with the B. & O. station ticket agent at that point. Washington is always attractive to visitors, and particularly so while Congress is in session. This arrangement for stop-over privilege will doubtless be appreciated by the public, and will bring to the National Capital many travelers to view its superb public buildings, monuments, museums and thoroughfares.

FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

No advertisements but those of a financial character will be accepted for the following page.

Sale of Bonds.

The commissioners of Calhoun county, Alabama, announce that bids will be received until noon of May 4, 1897, by Emmett F. Crook, judge of probate, Jacksonville, Ala., for the sale of \$75,000 of Calhoun county bonds.

New Corporations.

A movement is on foot to open a new bank at Tyler, Texas, by local merchants.

Duncan Young and others are interested in forming a loan association at Amite City, La.

The Phoenix Building and Loan Association has been formed at Savannah, Ga., with the following officers: President, D. J. Morrison; treasurer, Albert Wyly; secretary and solicitor, J. Lawton Whatley.

New Securities.

D. W. Moore, mayor, will receive bids for \$6000 in 6 per cent. school bonds to be issued by the town of Jellico, Tenn.

The town of Monroe, N. C., it is stated, will vote on the question of issuing \$100,000 in bonds. Address the town clerk.

The city of Charlotte, N. C., has been authorized by the legislature to issue \$250,000 in bonds. Address the mayor.

The town of High Point, N. C., will vote May 3 on issuing \$10,000 in 6 per cent. bonds. Address E. N. Snow, secretary.

It is reported that the people of Durham, N. C., are considering an issue of \$150,000 in water-works bonds. Address the mayor.

It is announced that the town of Bamberg, S. C., will vote April 13 on an issue of \$25,000 in 7 per cent. bonds. Address the town clerk.

The Charleston City Railway Co., of Charleston, S. C., may issue \$850,000 in bonds secured by a mortgage on its property. Frank F. Whilden is secretary.

It is reported that an election will be held in May by the people of Chester, S. C., regarding the issue of \$50,000 in improvement bonds. Address the mayor.

The clerk of the town of Dallas, N. C., may be addressed about a proposed issue of \$25,000 in courthouse bonds. It is stated that a vote will be taken to decide the matter.

Dividends and Interest.

The Bank of Plaquemine, La., has declared a dividend of 8 per cent. for the last year.

The Hopkins Place Savings Bank of Baltimore has declared an extra dividend of ½ per cent. to depositors.

The Border State Building Association of Baltimore has declared a semi-annual dividend of 2½ per cent.

The Portsmouth Water Front Co. has declared a dividend of \$75 per share. This makes an aggregate of \$200 per share in dividends paid in the last six months, or 40 per cent. of the total value.

Interest payments are announced by Baltimore banks as follows: German Savings Bank, 4 per cent., annual; Maryland Savings Bank, 3 per cent., annual and 1 per cent. extra dividend; Savings Bank of Baltimore, 3½ per cent.

Financial Notes.

John P. Heap has been elected general

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manager of the Southern Building and Loan Association of Knoxville, Tenn.

It is stated by a correspondent of the Manufacturers' Record that an opportunity to open a bank is offered at Richards, Mo. The mayor may be addressed for information.

A Railroad Course.

Purdue University, of Lafayette, Ind., has determined to cover the various branches of railroad work as thoroughly as possible in its course of instruction, and has issued a circular in which it states that the year beginning in September next will include eleven courses and a series of special lectures on this subject. The courses include railway equipment, locomotive performance, laboratory work as applied to locomotives, designing, railway surveying and construction, economics of railway location, rail-

way chemistry and economics in general and railway sanitation.

The faculty for the railroad department includes a number of well-known officials, among them President M. E. Ingalls, of the Chesapeake & Ohio system, who will deal with the very broad subject of "Railways—Their Past, Present and Future."

The step taken by this institution is a very progressive one, and the practical results will be awaited with interest by railway men and educators generally.

Compressed-Air Motor Successful.

The Eckington & Soldiers' Home Railway Co., of Washington, has been trying a car equipped with the Hoadley-Knight compressed-air motor, and, according to a statement of the receiver, W. Kesley Schoepf, the motor is a practical success. Orders for fifteen of the motor cars have been given, it is understood, to be used within the District of Columbia limits. About 130 motors will be required to equip the entire line.

Each motor carries thirty-six air reservoirs as an equipment. They are placed beneath the seats and the platforms. The pressure is reduced down to the motor automatically, and with a pressure of a few hundred pounds the car runs equally as well, if not better, than when it has been freshly charged. Such cars as are to be used on the Eckington line will run fifteen miles with one filling of the reservoirs. The reservoirs, or "bottles," as they are called by the operators, are tested to 4000 pounds, and carry a pressure of 2000 pounds when in actual use. Several are broken at the factory out of each fresh consignment by a pressure as high as 7000 or 8000 pounds to the square inch, to note the quality of the steel and the effect of the explosion.

The Columbia & Maryland system, between Baltimore and Washington, will utilize the Eckington route to enter the latter city. Arrangements are now being made for the resumption of work on the Columbia & Maryland, and there is a possibility that it will be completed between the cities about September 1 of this year.

NOTICE TO CONTRACTORS.—The Building Committee for the Mecklenburg County courthouse solicits bids for the Grading, Granite Curbing and Artificial Cement Walks for the approaches to the courthouse, agreeable to the plans and specifications as prepared by Architect Frank P. Milburn. Same are now on file with John R. Erwin, chairman (at the old courthouse). All bidders are required to file a good bond in the sum of \$1000 as evidence, if awarded the contract, that they will comply with the plans and specifications as per contract. Bids will be received until 1 P. M. Saturday, April 24th, 1897. JOHN R. ERWIN, Chairman, Charlotte, N. C.

O. W. CLAPP & CO., Inc.

Brokers and Commission Merchants,

No. 56 New St., NEW YORK,

SOLICIT AND EXECUTE ORDERS ON

New York Stock Exchange.

New York Produce Exchange.

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Unsurpassed Private Wire Facilities to New York, Chicago and Western Exchanges.

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Mercantile Trust & Deposit Co.

OF BALTIMORE.

Paid-up Capital, \$1,000,000.

Surplus, \$1,000,000.

DEPOSITS RECEIVED

On which interest is allowed, governed by current rates obtainable.

TRUSTEES AND ADMINISTRATORS.

This company is a Legal Depository for funds in the hands of Trustees or Administrators, and allows interest on same pending distribution.

Authorized to act as Executor, Administrator, Guardian, Receiver or Trustee.

ACTS as Trustee of Mortgages of Corporations and accepts Transfer Agency and Registry of Stocks.

Safe Deposit Boxes for Rent.

Vaults supplied for Storage of Silver Chests, etc.

JOHN GILL, of R., President.

J. WM. MIDDENDORF.

Members Baltimore Stock Exchange.

WM. B. OLIVER.

MIDDENDORF, OLIVER & CO. BANKERS AND BROKERS,

No. 213 E. German Street, [KEYSER BUILDING.] Baltimore, Md. Stocks and Bonds Bought and Sold on Commission. Special attention given to Municipal and other Investment Loans. Dealers in Foreign Exchange. Drafts on Europe and Letters of Credit furnished.

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OUR FACILITIES ARE UNEXCELLED.

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MUNICIPAL BONDS A SPECIALTY.

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Fidelity and Judicial Bonds of every kind Issued by

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Bonds furnished Officers and Employees of Mercantile Houses, Banks, Railroads, Express and Telegraph Companies.

Officials of States, Cities and Counties. Becomes Surety on Bonds of Guardians, Assignees, Executors, Trustees, Replevin, Injunctions, Administrators, Receivers, Attachment, and all undertakings in Judicial Proceedings in State and United States Courts. Does not act as Executor, Administrator or Trustee. Patronage of Lawyers specially solicited and special rates given.

CAPITAL..... \$500,000.00

STOCKHOLDERS' LIABILITY..... 500,000.00

TOTAL RESOURCES..... \$1,000,000.00

HON. FRANK BROWN, President. Governor

of Maryland from 1892 to 1896.

JOHN R. BLAND, Vice Pres. and Gen. Manager.

J. KEMP BARTLETT, JR., Second Vice-Pres.

ALEXANDER PAYSON KNAPP, Secretary.

TOWNSEND SCOTT, Treasurer.

HON. ISIDOR RAYNER, General Counsel.

MARTIN LEHMAYER, { Assist't Counsel.

WILLIAM B. RAYNER, }

WOULDN'T YOU LIKE TO OWN AN INTEREST IN A GOLD MINE?

Suppose you write for particulars about

THE BIG UNION MINING CO

This company owns and is now opening up rich gold mines in the famous Leadville Gold Belt of Colorado. The officers and stockholders of the company are not speculators but are well-known conservative business men. Here are some of them:

OFFICERS.

R. E. LYON, President.

STEPHEN H. EMMENS, Vice-President.

L. L. POWELL, Secretary.

H. B. TILDEN, Treasurer.

ARCHIBALD H. TAYLOR, Gen'l Counsel.

DIRECTORS.

B. L. Duke, the great tobacco manufacturer

Durham, N. C.

W. T. O'Brien, of the American Tobacco Co.,

Durham, N. C.

Stephen H. Emmens, Pres't of the Mini and

Industrial Exchange, New York City.

R. E. Lyon, of Baltimore, Md.

Geo. C. Schuermann, of Baltimore, Md.

L. D. Heartt, Cashier First Nat'l B'k Durham, N. C.

H. B. Tilden, of Baltimore, Md.

The stock of this company has been listed on the New York Mining and Industrial Exchange.

The office of the company is at 849 Equitable Building, Baltimore, Md.

The treasury stock now being offered affords an investment opportunity that is well worth looking into.

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